



LANDS AND PEOPLES





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# *Lands and Peoples*

THE WORLD IN COLOR

*Editor-in-Chief*

R. BRUCE TAYLOR, D.D., LL.D.

*Principal, Queen's University, Kingston*



*Including a Special Survey of*

THE LEAGUE OF NATIONS

*By*

GRAHAM SPRY, B.A.

*and A FOREWORD by*

H. M. TORY, D.Sc., LL.D., F.R.S.C.

*President, The League of Nations Society in Canada*

VOLUME VI

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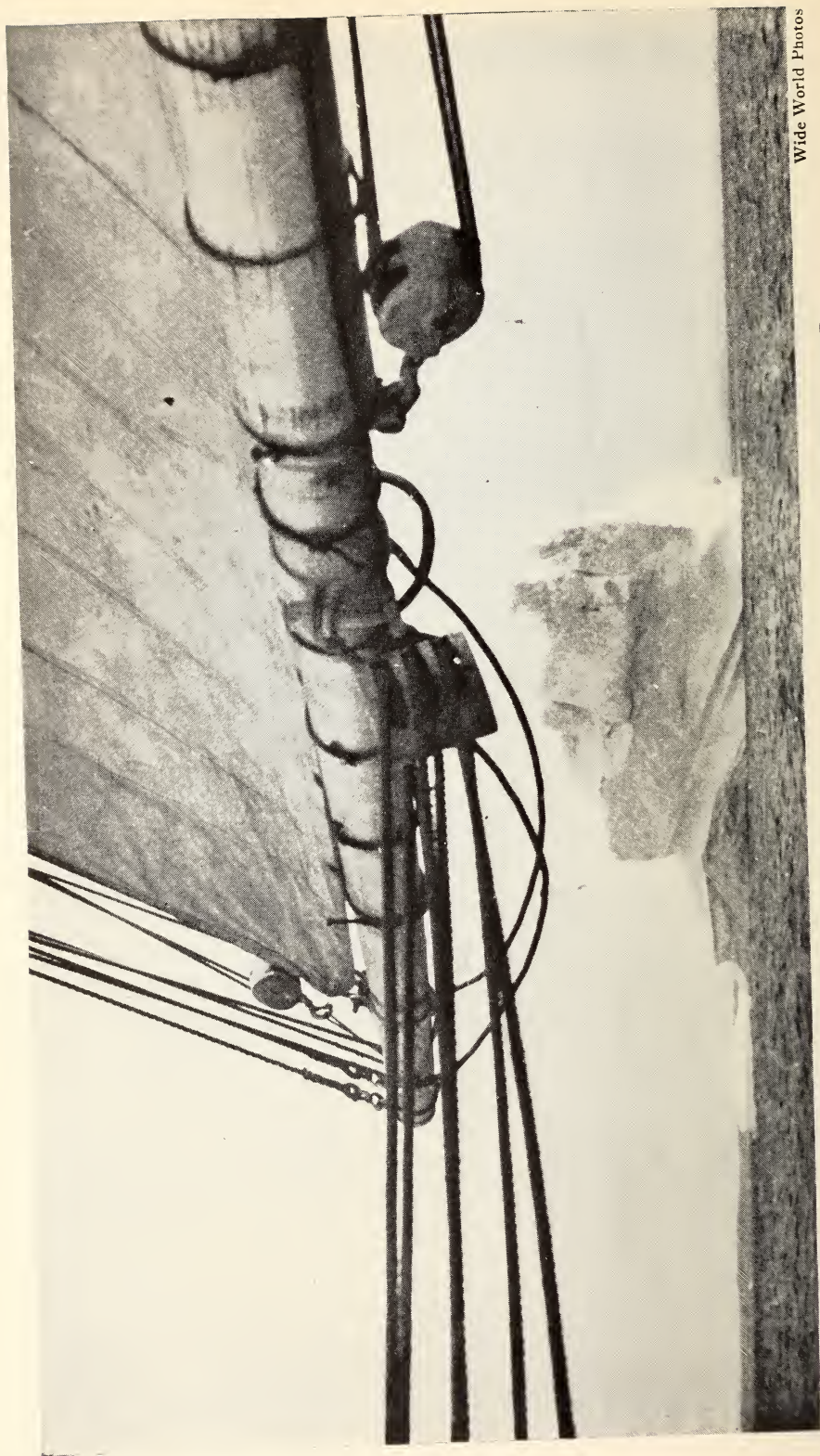
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# Volume VI

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Wide World Photos

HUGE ICEBERG SEEN FROM A SAILBOAT'S DECK OFF BAFFIN LAND



# THE FRIENDLY NORTH

## *Northern Canada and the Polar Regions*

For a thousand years men have sought the secrets of the Arctic regions. The desire to find a Northwest Passage over the top of North America led to many expeditions, of which the most famous was that of Sir John Franklin (1845-48), who perished with all his men. More than fifty years later (1903-05), Roald Amundsen navigated the entire passage. During the latter half of the nineteenth century there were dozens of Arctic expeditions. A United States naval officer, R. E. Peary, spent several seasons in the Arctic regions and in 1909 announced that he and one companion had reached the Pole April 6, 1909, using dog sledges. On May 9, 1926, another United States naval officer, Richard E. Byrd, accompanied by Floyd Bennett, flew over the Pole in the aeroplane, Josephine Ford. The first crossing of the polar sea by airship was made by Amundsen, Ellsworth and Nobile in the Norge, in 1926; while the first crossing by airplane was by Wilkins and Eielson in 1928. Meanwhile others had been exploring without making any effort to reach the Pole. Perhaps the most successful was Vilhjalmur Stefansson who has headed three expeditions, exploring and studying much of hitherto unknown Arctic America. In the story which follows Mr. Stefansson himself tells something of the region and its inhabitants.

**B**Y a sort of impromptu legal mathematics, Canada has defined her sub-Arctic possessions. South of parallel 60 she speaks of provinces, but north of that degree of latitude she calls them territories. Like most rules, however, this one has an exception, for a small triangle of Quebec protrudes north of the boundary.

The lands north of 60° are nearly half of Canada. When we remember that Canada is larger than the forty-eight states of the United States we are prepared to find within these northern domains many conditions, several climates, and at least three conspicuously distinct types of people. The vegetation and the animals differ correspondingly.

Yukon Territory is mostly mountainous and forested. The high range along the southwest corner prevents the inland climate from being much affected by the Pacific, and there is only a little panhandle stretching north which is materially affected by the sea climate of the Arctic. Most of the Yukon has, therefore, a continental climate. The summers are hot, with temperatures ranging upward to 100° in the shade; the winters are cold, with the alcohol thermometers falling toward 80° below zero.

The Northwest Territories comprise all the remaining land of Canada including

the adjacent islands not included in any province. The forests and prairies of the Northwest Territories, east of the Yukon, are determined by the trend of midsummer sea winds. Therefore, the boundary between treeland and grassland runs more or less northwestward from a point a little north of Churchill, on Hudson Bay, to the Polar Sea near the foot of the Cape Parry Peninsula, straight south from Banks Island. South or southwest of this line we have roughly the continental or Yukon climate, with intense summer heat and intense winter cold. Northeast of the line the winters are less cold and the summers less warm. The islands north of Canada are necessarily prairie, for the same reason of midsummer sea winds.

Greenland is, by the current Danish estimates, 84 per cent ice-covered. This is because that territory is mountainous and has a heavy precipitation from the surrounding waters. No Canadian island is so high and none of them are therefore ice-capped, but there are considerable glaciers in three—Ellesmere, Heiberg and North Devon. There are some glaciers in Baffin Island but it is doubtful whether they are as large as those of British Columbia, although probably larger than the ones so familiar to tourists in Switzerland. There may be a glacier



Courtesy Current History

### MAP OF THE ARCTIC CIRCLE

White area: Sea never yet navigated because of floating ice cakes.

Shaded area: Sea that has been navigated.

Ruled areas: Unforested land—prairie or tundra. (The broken ruling of Greenland is to show that it is about 84% covered with ice. Most arctic lands have no permanent ice on them.)

The dotted line from Norway to Labrador and back to Greenland is the conjectured route of Leif in 1000 A.D. The heavy line from Iceland to Greenland is Eric's track in 982 when he discovered Greenland.

on Meighen Island. Apart from this there is far less permanent snow in the Canadian islands than there is in Switzerland and Austria. The Canadian mainland north of the Arctic Circle has no permanent snow. This is because mountains are absent and the winter snowfall is light. Portions of such states as New York and Michigan have an annual snowfall from two to five times as great as the average for the Canadian Arctic.

The old popular idea of Canada, Our Lady of the Snows, as part of the "frozen north," sometimes even exaggerated into "barren ground," has long been exploded, yet the editor of the Northwestern Miller, perhaps the leading journal of that industry in the world, has said that he well remembers the time when the millers of the Twin Cities of Minnesota had little confidence in the permanent wheat-producing power of northern North Dakota,



## THE FRIENDLY NORTH

and believed that no serious competition would ever come from the British prairies to the north. But he adds that now Winnipeg alone handles more wheat than the three largest wheat markets of the United States put together.

A more remarkable or at least a quicker change of opinion has taken place within the Canadian Prairie Provinces themselves. No one in Alberta is entitled to membership in an Old Settlers Association who does not remember the time when Edmonton, just south of the centre of that province, was considered to be on the northern fringe of wheat production. Now it is common talk, even in Calgary, Edmonton's more southerly rival, that the northern half of the province will eventually produce more wheat than the southern half. The prize for the world's best wheat has already been won several times by the northern half of Alberta Province.

What surprises even Canadians is that

summer frosts which injure wheat are actually more numerous south of the middle of Alberta than north of it. The point is that the maximum heat of the summer noonday, around  $95^{\circ}$  or  $98^{\circ}$  in the shade, remains about the same as you go north from the equator, while the sun shines more and more hours per day. The night is therefore shorter and the earth and air have less time to cool off between the last warming of the sunset and the first warming of the sunrise. When you get so far north that the midsummer nights are nearly gone the night frosts of midsummer are quite gone.

The wheat empire of Canada is therefore bound to stretch gradually north beyond the Prairie Provinces into the sub-Arctic Northwest Territories, not stopping till the winds from the Arctic Sea begin to interfere. Her supremacy in feeding the world may, however, be challenged by Siberia, where exactly the same



Photograph by Burton Holmes from Ewing Galloway

HUT IN DAWSON BUILT DURING THE GOLD RUSH OF 1898-99



## THE FRIENDLY NORTH



Courtesy Canadian Pacific Railway

### A TYPICAL MEMBER OF THE ROYAL CANADIAN MOUNTED POLICE

Outside the Provinces of Canada they use horses only in the Yukon.

conditions will tend to draw cereal-farming into the sub-Arctic.

A scientific bureau of the Soviet Government has announced it as a principle that the intensity of winter cold may be almost wholly disregarded when you are studying the agricultural and pastoral resources of a northerly country. Canadians are beginning to realize this for the Northwest Territories and Americans for Alaska. That means the settling of those domains by a pastoral population.

The books used to say that in the Northwest Territories of Canada the ground is always frozen and "the vegetation therefore poor or absent." But the ground frost really produces an effect just opposite to the one we had expected. A hundred miles south of the Arctic Circle one smart kick with a booted toe reveals in August ground underneath the warm sod perpetually frozen as hard as granite, but a hundred miles north of the Circle you still find growing upon this icy concrete trees of black spruce measured by the Forestry Commissioner of Canada at over seventy feet.

However, the most definite friendliness of the ground-ice for vegetation is seen on the prairies north of the forest. For the frost nullifies that yearly variation in rainfall which in most lands is considerable and in some extreme. Plants would die in Australia under rains as scant as those of the Arctic. But in northern Canada when a dry season produces increased heating of the soil, there follows a melting of a little of the ice below, so that all the plants have to do to quench their thirst abundantly is to reach with their roots an inch or two deeper than they usually do. There is accordingly neither in northern Canada nor in northern Siberia any appreciable variation in the productivity of the grasslands between the dry and wet years.

At Fort Yukon, Alaska, north of the Arctic Circle, a tested United States Weather Bureau thermometer has recorded  $100^{\circ}$  in the shade six feet above eternal frost. One of those six feet is soil which so completely imprisons the chill of the ground that the heat of the air just above it is that of the humid tropics, whether judged by an instrument or by the nerves of the people who swelter in it.

There is intense winter cold in the places of the greatest sub-Arctic summer heat. The spot that has  $95^{\circ}$  in the shade in July may have  $-75^{\circ}$  in winter. However, the coldest places, both in Canada and Siberia, are found within the forest. Out on the prairie, which may be called "barren grounds" if you want to be terrifying or romantic, you seldom come within ten or fifteen degrees of weather as cold as that of the forest. This seems to be because the prairie condition is produced by the chill ocean winds of summer. These same ocean winds are correspondingly warmer in winter. Therefore you find that the minimum temperatures get less and less severe as you go north through Canada in January toward the Arctic Sea. Seventy-five below zero is recorded frequently in the Canadian forest, but fifty-five below has never yet been recorded on the north coast of Canada. Neither is there any weather

## THE FRIENDLY NORTH

bureau or other probably reliable record as low as  $-55^{\circ}$  on any of the islands to the north of Canada.

These islands, however, are never extremely hot in summer. You must get far from the ocean to have great heat, and by the nature of things you cannot do this on an island. Similarly by the nature of things you will have the greater heat inland the larger the island. Tempera-

Siberia. But the important thing is that when you come to the end of the forest you only come to the beginning of the prairie. You may disguise that fact, if you like, by calling it "barren ground" in Canada or "tundra" in Siberia, but that is mostly quibbling. True enough, there is a difference between the Arctic and the Temperate Zone prairie, just as there is a difference between the prairies



Photograph by Burton Holmes from Ewing Galloway

### PANORAMA OF DAWSON IN 1919

tures around  $85^{\circ}$  in the shade will be found in the centre of Victoria Island, 300 to 400 miles north of the Arctic Circle. None so high are probably found in Baffin or Ellesmere Islands. This is not because they are more northerly, but because they are both higher and swept by more persistent sea winds.

The forests of black spruce go more than a hundred miles north of the Arctic Circle in some of the river valleys of Canada and more than twice that far in

of Montana and Brazil. However, if you want to convey the idea that to the casual eye there is much similarity between treeless but well-watered grasslands in every zone, then the best common word is prairie.

There are some districts in the Arctic, no doubt, where mosses and lichens prevail above flowering plants both in number of species and in tonnage per acre. But in the Arctic as a whole there are 700 species of flowering plants against 500





**ESKIMOS POSING FOR A MOTION PICTURE**  
Pulling up on a cake of sea ice a bear they have killed.



Photographs by Ewing Galloway

**ESKIMO GIRLS STARTING OFF FOR A DUCK HUNT**

Inset: The results.

The implication that the girl secured her ducks with bow and arrow shows the imagination of the movie director. Before guns were introduced it was the men who hunted ducks, not the women, and they used a kind of bolas, not a bow.



COPPER ESKIMO CARIBOU HUNTERS IN 1915

They used bows then but have rifles now. One of these men is wearing snow goggles of wood with narrow slits, the other has them raised on his forehead. The Copper Eskimos are so called because most of their weapons were of hammered and ground native copper. They live around Coronation Gulf and Victoria Island.

of mosses and lichens combined; by tonnage there is at least ten times as much flowering vegetation in the Arctic as non-flowering. Texas claims only 500 species of flowering plants.

Where there are flowers there are certain to be insects. Peary saw a bumblebee out over the ocean half a mile north of the most northerly land on earth. De Long's men caught a live butterfly on the floating sea-ice, and this was 700 miles north of the Arctic Circle and 10 or 20 miles from the nearest island.

Mosquitoes are the great plague and hardship in all inland parts of the sub-Arctic and on most Arctic lands. They get steadily more numerous as you go north through Canada from the United States boundary, until they are at their worst on or just south of the Arctic Circle. Then they get less as you continue north and are not serious any more 500 miles beyond the Circle. There is a similar northward decrease of many other insects.

The varieties of Arctic and sub-Arctic climate and conditions strike you particularly in relation to the people. Some Eskimos live in a forest but others have never been within several hundred miles of a tree. Most Eskimos live on or near a seacoast but there are some who have never been to the ocean. Fully half of the 35,000 or so Eskimos of the world live on seals mainly, but there are a few

who have never tasted seal meat. Most Eskimos have still their native speech, but a few speak no language but English. Many in Greenland are familiar with Danish, some in northeastern Siberia know Russian, and so the complexity grows.

The first Eskimos came in contact with Europeans on the coast of Labrador about 900 years ago, and others on the coast of Greenland soon thereafter; but my second expedition in 1910 visited several hundred Eskimos who had never seen a white man until they met our party. It is probable that the last Eskimos saw their first European when the Rasmussen Expedition



Courtesy Department of Mines, Geological Survey  
THE CARIBOU HUNTERS READY TO SHOOT





Wide World Photos

### BUILDING A TEMPORARY SNOWHOUSE

The Eskimo mason quickly shapes and fits the snow blocks for a house in which to spend a day or two while out on a winter journey. Some Eskimos (about 5,000) live in snowhouses all winter, but most Eskimos (about 25,000) have never seen this kind of a dwelling.



Photograph by Ewing Galloway

### THE SHELTER NEARS COMPLETION

Snow suggests cold to most people but to certain branches of the Eskimo people it is normal building material for a midwinter house in which he and his family are comfortable by day or by night.



### GROUP OF COPPER ESKIMOS WITH THEIR SNOWHOUSES IN THE BACKGROUND

It is spring—early May. Some of the snow roofs have melted and caved in. They have been replaced by skin roofs spread over the snow walls.

came to them in 1923. Some Eskimos saw their first book or paper either in my own hands or Rasmussen's, but one of the oldest journals now published in the New World is as completely Eskimo as the Spectator is English or the Atlantic Monthly American, and has appeared every year since 1861.

Being the last people on the far edge of the earth, these northerners have been particular victims of our folklore and superstition. Apparently because it was a common European belief in ancient times that there were pigmies in the Far North, and also because cold is supposed to have a stunting effect, the Eskimos have been described until recently as a small or dwarfed people. They are more properly

described as of medium size. Our idiom compels us to say "Eskimos and Indians" but the general scientific opinion is that they are merely one kind of Indian and should therefore be called Eskimo Indians, corresponding to Sioux Indians or Iroquois Indians.

There is a belief common even now that most Eskimos, or all of them, live in snow-houses in winter, but the fact is that snow-houses are about as local in the Arctic as adobe houses are in the United States. Europeans, wherever in the world you find their descendants, usually travel a great deal, see pictures and read books. Most Swedes, for instance, would know that there are adobe houses in New Mexico. But before the white man came



Courtesy Department of Mines, Geological Survey

### A SUMMER CAMP OF THE COPPER ESKIMOS





**COPPER OR "BLOND" ESKIMOS IN FULL DRESS**

They live in Coronation Gulf and were first visited by Stefansson in 1910. These photographs were taken by Sir Hubert Wilkins, then a member of the Third Stefansson Expedition, in 1916.

the Eskimos had no books, they traveled comparatively little, and some of them dwelt as far from others, when measured by the routes they had to travel, as Canada is from Brazil. Snow-houses have been seen by less than a third of the living Eskimo population of to-day. Most of them, however, know snowhouses pretty well through hearsay. A good many have seen movies made where they are found.

Eskimos are, generally speaking, a people of restless intelligence. Make it really clear to one inhabitant of a village that it is possible to set down a black mark on a white surface which means one sound and another black mark which means another sound. Show him that by twenty-five or thirty such marks, each different from the others, he can represent most or all of the important sounds of his own language. That is all you need to do. Come back a year or two later and you will find half the village reading and writing, with the knowledge already spreading to neighboring communities.

This, of course, applies only to writing the native tongue. American school teachers in Alaska find the same difficulty in teaching English to thoroughly Eskimo communities that they would find in teaching Latin in Wisconsin or Texas. In mining towns like Nome, however, the Eskimo children learn English in school about as rapidly



**A MIDDLE AGED COUPLE; BROTHER AND SISTER 14 AND 10**

Eskimos from Mackenzie River.

## THE FRIENDLY NORTH

as the whites, if given the same opportunity. That is because they also hear it in the street.

Arctic travelers usually agree that the Eskimos are the happiest people on earth. This could not be even half true if their lot were as hard as we used to suppose. It is curious how our books formerly told us, first, that life in the Arctic is necessarily a continuous hand-to-hand struggle with frost and famine, and second that the Eskimos have elaborate carvings in ivory and that their garments are frequently made up of thousands of separate pieces artfully sewn together into complicated designs. The truth is in the carvings and in the clothing; the false inference relates to the supposed desperate struggle for life. A woman who could sew for herself a warm coat in two days, if she made it from two whole caribou skins, will instead spend more than half of each day for two or three months in cutting up a great many skins into almost an infinite number of small pieces and then matching them together, eventually developing a coat that is neither so warm as the two-day garment would have been nor so durable. In like manner her husband spends whole extra days and half-days in carving the handle of a bag that would have served him as well if left plain.

The so-called civilized nations have in one city the contrast between stark poverty and surfeiting riches. Naturally there is within the vast Eskimo territories a similar contrast. There are indeed communities, and I have lived in some of them, where there is hard work to make both ends meet. I have seen this in Victoria Island, and in Iowa, with this difference, that the Iowa farmers never starve to death but the Eskimos sometimes do. That is primarily for transportation reasons.

We have, then, in the more or less far north, vast territories, thousands of miles of coastline, and great stretches of inland wood or prairie in which there live a varied but generally carefree and happy people known as Eskimos. The main thing that binds them together and makes them Eskimos is their common speech, one of

the most difficult languages in the world for an outsider to learn.

It is said that a business man in a great city can get along if he has a ready command of from three to five thousand words, but an Eskimo cannot deal with his neighbors in less than ten to twelve thousand words, each colloquially at the tip of his tongue. It is not merely the size of the vocabulary. An English noun, for instance, has four forms—*man*, *man's*, *men*, *men's*; a Greek noun has nine forms; but an Eskimo noun has or can have more than a thousand forms, each different



Courtesy Natural Resources Intelligence Service

### A BEAUTIFUL COSTUME

The elaborate work on this woman's dress shows the maker must have had abundant leisure.

from any other and each with a precise meaning of its own. Their verbs are even more complicated than the nouns. Besides all that, you have to acquire a new way of thinking before you can speak such a tongue easily—a polysynthetic language.

But when you have learned a good polysynthetic language, you will not by choice use, say, English or German, for it is so much more flexible, precise and concise. Record, for instance, some Eskimo folklore as it is dictated to you by a storyteller. Then translate it idiomatically and you will find one page of Eskimo giving about two and a half pages of English.



You can say as much in one hour of Eskimo as in two and a half hours of English, and say it with more assurance that you have conveyed your real meaning.

Such statements as I have just made about the Eskimo language sound curious to the layman, but they are ordinary to the student of languages. More than a generation ago, one of the greatest linguists that the United States ever produced, Whitney of Yale, said about primitive tongues in general what we have just said about Eskimo in particular. Had a people with the other gifts and the fortunate geographical and historical position of the English or the French, for instance, possessed at the same time a language like the Eskimo, they would in all probability have made even more rapid and substantial progress in civilization.

Some people get satisfaction from thinking how different other people are from themselves. The Eskimos have been a particular butt of this weakness, which goes to extreme lengths at times. There is, for instance, in Canada a city where it is an important industry to build power schooners for sale to Eskimos. A citizen

of this town has a photograph showing \$200,000 worth of these schooners (each valued at \$5,000) in one view. They are lighted electrically, and when winter comes and the boats are laid up the power plants are frequently taken out and used to light the houses. Some of these Eskimos have independent Delco lighting systems. Yet the schools of the city were until recently teaching the children that "the Eskimos" have no boats except of skin and no lights except seal oil lamps.

There are, true enough, Eskimos within 500 miles from the southern boundary of Canada who live in impoverished and primitive style, but there are also Eskimos farther north and farther from the great world centres who have electric lights, radios, and who use recording phonographs in their correspondence. The whole thing is very complicated, not open to any simple explanation. It is similar to the poverty of the North Carolina mountains which you find near the riches of Winston-Salem, neither of them to be explained merely by distance north or south.

VILHJALMUR STEFANSSON.

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### YUKON AND NORTHWEST TERRITORIES: FACTS AND FIGURES

#### YUKON

A territory in the extreme northwest of the Dominion of Canada, bordered by Alaska on the west. Area, 207,076 square miles (land area, 206,427 square miles). Population (1930), about 3,000 whites and 1,300 Indians and Eskimos. The chief cities are Dawson (capital), 975; White Horse, 331. Governed by a Gold Commissioner and a Territorial Council of 3 elected members. The Yukon sends 1 member to the House of Commons of the Dominion. Mining of coal, copper, silver, lead and gold is the principal occupation. Fox-farming is also important. Forests produce white and black spruce, poplar, balsam and birch. There are 58 miles of railway; 600 miles of telephone wire; 650 miles of telegraph wire. The Yukon River furnishes means of communication between the coast and the interior. There are 5 public schools and 1 Roman Catholic school with about 290 pupils.

#### NORTHWEST TERRITORIES

Comprise all British possessions in North America and all islands adjacent thereto, not included within any province except the Do-

minion of Newfoundland and its dependencies. Area, 1,309,682 square miles (land area, 1,258,217 square miles). Is divided into 3 districts—Keewatin, Mackenzie and Franklin. Estimated population (1930), 7,000 Eskimos, 4,000 Indians, 1,000 whites. Governed by a Commissioner who exercises control through the Royal Canadian Mounted Police. Hunting and trapping on land and lakes and sea fisheries are the chief industries.

The islands north of Canada, included in the Franklin district, have an area of approximately 1,000,000 square miles. The largest are Baffin (about 211,000 square miles), Ellesmere (about 76,600 square miles), and Victoria (about 74,000 square miles). Banks, North Devon, Southampton, North Somerset, Prince of Wales, Melville and Axel Heiberg are also of considerable size. Population not more than 2,500 Eskimos. Most northerly village is Pond's Inlet, Baffin Land. There are temporary camps as far north as Dundas Harbor, Devon. 74° 30' N. Governed by Royal Canadian Mounted Police, 13 in number. Hunting and fishing occupy the people. There are coal and other minerals.

# THE INDIANS OF NORTH AMERICA

## *Their Former Life and Their Present Condition*

Descendants of the Indians whom the white man found in possession of North America still live in the land, but their power has departed. They now form an insignificant proportion of the population of Canada and the United States, though in Mexico and Central America they are greater both in numbers and influence. In the following chapter you are told something of their old organization, and manner of life, and also something of their life to-day in those parts of the land which the white men have assigned to them. It is a long story and not always a pleasant one.

NO discussion of North America is complete without an account of the inhabitants of the land when first visited by white men. Everyone knows they were called Indians because Columbus thought he had reached India; that they soon came in conflict with the whites; that the whites won, though after many bloody contests; and that to-day the Indians are powerless, and generally peaceable. There are many other facts not so well known.

Many suppose that there once must have been millions of Indians. One reading that there were only 110,814 in Canada at the Census of 1921, and 244,437 in the United States the year before, generally supposes that these totals are only the remnant of a much larger number. (In 1928, however, the U. S. Indian Bureau estimated that there were 355,901 of Indian blood.) As a matter of fact, students believe there were probably never more than a million Indians north of the Mexican line, and many think that the number was much smaller. South of that boundary they are more numerous and more important. It is true that many tribes have disappeared but others are probably as large as they ever were. However, many reported as Indians have a large admixture of white blood. The number of Indians of full blood is much smaller than the figures given above. Some men and women with more or less Indian blood have held high positions. John Norquay, long Premier of Manitoba, and Charles Curtis, Vice-President of the United States, are two examples.

These Indians, when first observed, were not alike. They differed quite as

much as the white men who have succeeded them differ among themselves. In some tribes nearly all were tall; in others short. Color varied from yellow to a dark chocolate brown, almost black. Most had rather broad faces but in some tribes heads were long rather than round. Some were lithe and graceful, fond of games and sports; others were clumsy and stolid.

Mentally, morally and æsthetically there were differences. Some of the tribes, as the Six Nations, had settled habitations, cultivated fields and had achieved an exceedingly effective government; the Pueblo Indians had developed intensive agriculture under irrigation, showed artistic ability in pottery and weaving, and both of these groups had elaborate codes of laws, effective even if unwritten. Others lived almost like animals, practiced no agriculture, and lived from hand to mouth. Some were peaceful; others were warlike. Some exhibited distinct artistic ability; others showed little or nothing of the kind.

When the white men came they found the Indians divided into many bands which we call tribes, perhaps eight hundred in all in the region north of Mexico. Some of these tribes recognized kinship with their neighbors and even with other tribes far away with which they kept up friendly relations. Other tribes were hereditary enemies. Even where kinship was not recognized by the Indians themselves, students have found such likeness of dress, manners, customs, pottery and other arts between tribes living far apart that they have suspected that they must have a common ancestry.

Many attempts have been made to clas-





SMITHSONIAN INSTITUTION

**THE SIOUX**, or Dakota tribe, was the largest member of the Siouan family which was once widely spread over the United States and Canada. The "eagle-feather" headdress proclaims this man a chief; but these feathers come, as often as not, from the hawk, renowned for bravery, and even from the wild turkey in the south. His breast ornament is of bird bones and "wampum"—originally colored shells, now usually replaced by beads—but his mantle is made of the bright factory-made cloth sold to the Indians by white traders.





LESLIE CLARK

**THE BLACKFOOT TRIBE**, possibly so called from the dark leggings they once wore, was of Algonkian stock, and was at one time the strongest member of a strong confederacy which ranged over the prairies of the United States and Canada. Now the few who are left are on reservations in Alberta and Montana. There has been less admixture of white blood than in some other tribes. Their costumes were often elaborate in design and gorgeous in color. The ornament on the breast of this important chief is made of porcupine quills.

sify the Indians. They have been grouped by the principal articles of their food, by culture areas (which means, in general, by their manner of life, their habits, manners, customs and religion), and finally by the likeness of their languages. First we shall speak of the classification by language.

Students of Indian languages have found between fifty and sixty different linguistic stocks among the tribes north of Mexico. Some of these are now entirely extinct, but the number still spoken is about fifty. Some of these, however, are now spoken by only a few individuals and not more than forty are of any importance to-day. Some students think that the number of stocks generally accepted is too great, and that perhaps some of the smaller stocks could be grouped together.

### *Algonkians and Iroquoians*

By far the largest surviving stock is the Algonkian (Algonquin), which was always, perhaps, the most numerous and most widespread of all. There were fifty or sixty tribes which occupied most of eastern and central Canada, and the northeastern quarter of the United States, though some tribes lived out of this area. The Indians whom the first settlers of Canada and the United States met were Algonkians. The Abenaki, the Micmac, the Montagnais, the Naskapi, and the Cree of Canada; the Ojibwa, the Ottawa, the Blackfoot, the Potawatomi and the Delaware, still found in both Canada and the United States, are Algonkian. So are the Cheyenne, the Arapaho, and the Shawnee of the United States. Fragments of other Algonkian tribes are found in both countries. At least 90,000, perhaps 100,000, survive, more than half in Canada.

Neighbors and, in old times, deadly enemies of the Algonkians were the Iroquoians who lived in the region about Lake Erie and Lake Ontario, and both north and south of the St. Lawrence, and also in southeastern United States. The Six Nations were Iroquoian, as were also the Eries and the Hurons or Wyandotes.

The Cherokees, the Tuscaroras, and several smaller tribes of the South were Iroquoian. The Tuscaroras moved from North Carolina to New York and joined the Five Nations after the white men came. The confederation was then known as the Six Nations. There are perhaps 50,000 remaining now, part in Canada, part in the United States, though many have a large admixture of white blood.

### *Athapascans and Siouans*

The next great group is the Athapaskan or Athabaskan, often called the Déné, covering a wide territory in northwest Canada and Alaska, along both sides of the Mackenzie and Yukon rivers, though scattered tribes may be found all the way to Mexico. In fact the Navaho and the Apache of Arizona and New Mexico, who belong to this stock, include the majority of the members surviving, as most of the other tribes are small. The Chipewyan, the Hares, the Dog-ribs, the Nahanni, the Slave and the Loucheux are some of the Canadian tribes, but there are several others. There are something more than 50,000 of this stock surviving.

The next stock in size is the Siouan which is believed by some scholars to have lived first in the South, but the white men found them in the upper valleys of the Missouri and the Upper Mississippi, extending into Canada. The Catawbas were the only large tribe left in the South. The Dakotas—often called simply the Sioux, just as men often speak of the Five Nations as if they were the only Iroquois—comprise half of the whole number. They live in the Dakotas, in Montana and Minnesota and a few are across the Canadian line. The Assiniboin, farther west in both Canada and the United States, are Siouan, as are also the Crows of Montana, the Omahas of Nebraska and the Osages of Oklahoma. Many of the former tribes have disappeared. About 40,000 of this stock remain.

### *Indians of the South*

The next important stock is the Muskogean (Muskogian) which the white



men found in southeastern United States. Only four tribes of any importance are left, the Choctaws, Chickasaws, Creeks and Seminoles. All except a few were long ago removed to what is now called Oklahoma, formerly Indian Territory, and with the Cherokees make up the Five Civilized Tribes. There is a large admixture of white blood, and in fact many no longer think of themselves as Indians. Generally they live as white men do, and many are prosperous citizens with considerable influence in their communities.

The next considerable group is the Salishan found chiefly in British Columbia and the adjacent islands, and in Washington, with outlying tribes in Montana, Idaho and Oregon. The principal tribes are the Shuswap, the Thompson, the Bilqula (Bellacoola), the Lil-looet and the Kavitshin (Cowichan) of Canada, the Flatheads of Montana, the Kalispels of Montana and Washington, the Lummi of Washington, the Spokane of Idaho, Montana and Washington. The Okinaken (Okanagan) are in both British Columbia and Washington. There are somewhere around 20,000 of this stock at the present time.

Next we may mention the Shoshonean confined to the United States and Mexico. This stock is widely scattered and differs likewise in habits and manner of life. Some are Plains Indians, good horsemen, as the Comanche, now in Oklahoma. Others like the Hopi of Arizona had settled homes and were agriculturists. The Utes and the Paiutes, and the Shoshoni Indians of the plateau region are Shoshonean. Some scholars think that the Shoshonean is only a division of a much larger stock. There are something more than 15,000 of them at the present day.



Courtesy Canadian National Railways

#### TOTEM POLES IN THE PACIFIC NORTHWEST

The Indians of the Northwest have a complicated system of religion. These curiously carved poles, which are at Kitawanga, British Columbia, indicate that the owners have a particular totem. All with the same totem are kin.

All the other stocks (except the Eskimo) are smaller, as only one is thought to have more than 5,000 survivors. This is the Piman living chiefly in Arizona and is sometimes classed with the Shoshonean stock. They live in settled habitations, cultivate the ground and make excellent baskets and pottery. The Wakashan or Kwakiutl-Nootka inhabit Vancouver Island and the mainland to the north. The Makah in Washington are a remnant of this stock. The Koluschan or Tlingit stock lives in Alaska and the Canadian coast just to the south. Both of these stocks last named get most of their food



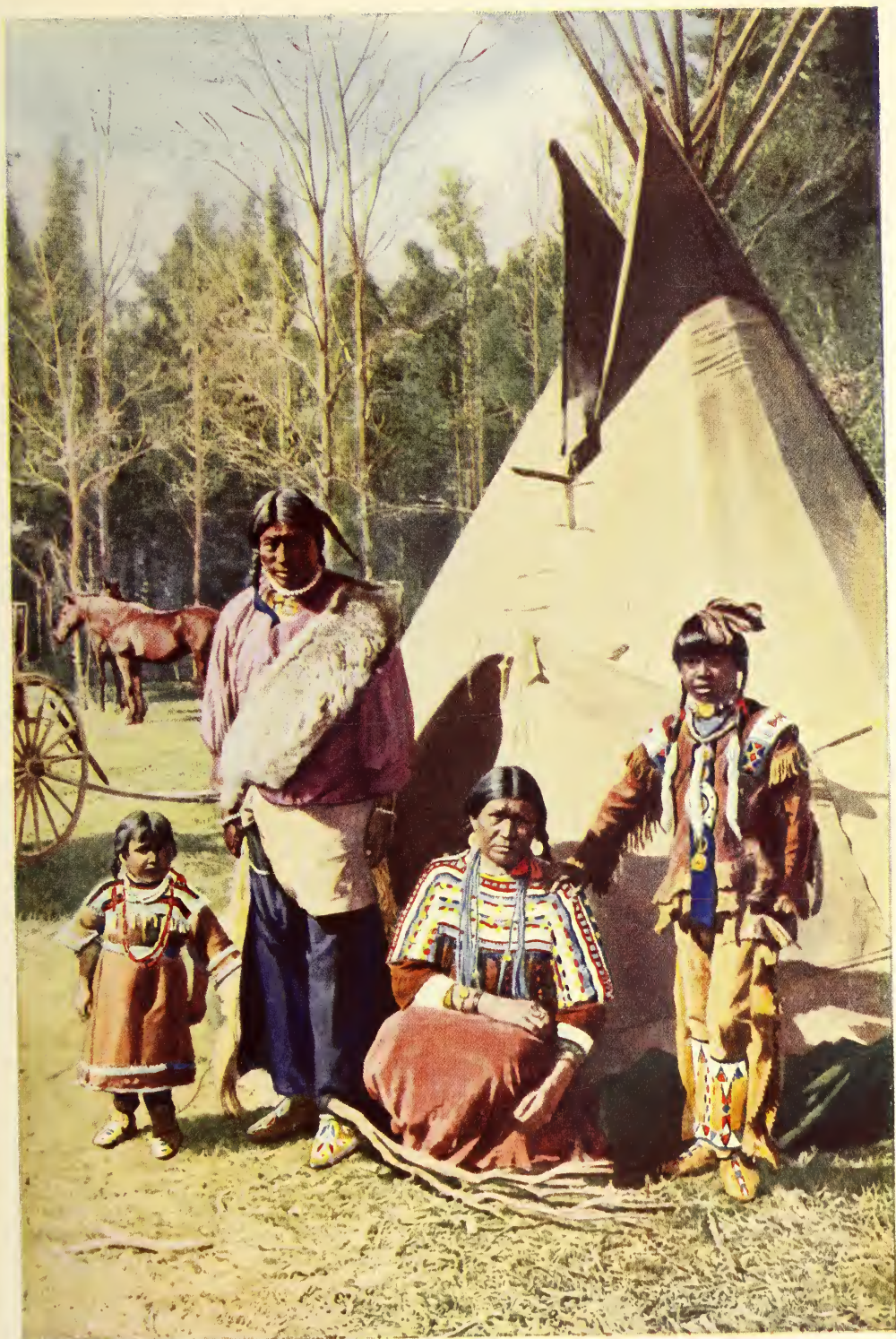


© EWING GALLOWAY

**THE HORSE AND THE INDIAN** seem almost inseparable. A cloud of mounted braves, sweeping down on the white man's camp, is a scene made familiar by many books and pictures describing the Far West. And so it is hard to realize that the horse was only introduced by Europeans

to America. The Indian, however, took easily to horseback, and these Blackfoot girls, wearing their bright woolen blankets and fillets of beads, are bred to it from childhood. They are on their "reservation" on a lake high up in the Rocky Mountains, and adjacent to Glacier National Park.





**THE IROQUOIS** who are among the most advanced of all Indians lived in settled habitations when first visited by whites. Their houses were of poles, covered with bark. This family of Canadian Iroquois, however, has adopted canvas as a material for a movable dwelling, but in costume the members have kept some elements of earlier styles.





© Hileman

#### BLACKFOOT INDIANS ON PARADE NEAR ICEBERG LAKE, GLACIER NATIONAL PARK

The reservation of the remnant of the three tribes of the Blackfoot Confederacy is near Glacier National Park, and many of them are accustomed to secure a considerable part of their income from the tourists visiting the park. About as many, or possibly a few more, of

this confederacy live across the Canadian line in Alberta, and pursue much the same kind of life. Generally they are good horsemen and take some pride in their mounts. Iceberg Lake is a great pit shaped like a horseshoe, hollowed out by the ice sheet in ages past.





Courtesy Canadian Pacific Railway

#### A GROUP OF INDIANS NEAR BANFF ROCKY MOUNTAINS NATIONAL PARK

The mixture of old and new in the manners and customs of the Indians of the present day is excellently illustrated by the picture. The shape of the tent is old, but it is made of canvas instead of skins; the clothing also shows many contradictions. The coming of the white man has on the whole been a tragedy to the great majority of the Indians.

from the sea, and there are hardly 5,000 of either.

Often reference is made to the Pueblo Indians as if this were the name of a stock. This is incorrect as the name is the Spanish word for village and refers to Indians of several stocks, chiefly in the southwestern part of the United States, who live in villages of stone or adobe houses and cultivate the ground.

The Eskimos are treated by some writers as if they were purely Mongol but most students class them as Indians. They occupy the coasts and islands of Arctic America extending from Labrador and Greenland on the east to Siberia on the west. They are usually divided into the Eskimo proper and the Aleuts who live on the Aleutian Islands. There are little more than 30,000 in all this vast expanse of Canada and Alaska.

There are dozens of other stocks, some represented to-day by a fragment of a single tribe. To discuss them all would require more space than we can give, interesting as some of them are.

It has already been said that tribes of the same stock differ very widely in their manner of life, in their food, their dress, their government and their religion. Students recognize nine or more "culture areas," in which the tribes lived more or less the same kind of lives, though, of course, there were minor differences and the border tribes were influenced by the culture of the adjacent area. One widely accepted division follows.

The Arctic or Eskimo Area has already been described. In the central region the inhabitants build snow houses on the ice in winter, or else live in huts of driftwood along the shore and hunt the seal. In





BROWN BROTHERS

**THIS OJIBWA** (Chippewa) girl is wearing a buckskin costume, which more properly should be worn by a Blackfoot, or other Plains Indian. The Ojibwas, who are of Algonkian stock, now live in both Canada and the United States, and many show admixture of white blood. The Indians who are so interestingly described in Longfellow's *Hiawatha* were Ojibwas.





**THE SIOUX CHIEF** who poses here so haughtily with his squaw has a headdress of immense size reaching to his knees. Moreover, the pipe he is carrying is evidently not the "pipe of peace," as it is an iron-headed tomahawk as well—the original tomahawks were of stone. The woman carries a beaded bag very like those so popular among her white sisters.



summer they fish in the lakes and rivers and hunt land animals. They used to live in skin tents, but now often use tents of canvas and eat beans, bacon and flour, bought at a trading-post. Formerly stone houses were rather common, but they are no longer built. They make boats of skins, and carve bone, ivory and wood (when they can get it) with skill. They make lamps and kettles of stone, unknown elsewhere in America, and also excellent weapons and tools. Formerly the western Eskimos made pottery. They make large use of dogs. The whaling harpoon and the dog sledge are their contribution to our civilization. The introduction by the United States of the reindeer into Alaska has made many Eskimos prosperous.

### *Northern Culture Areas*

Just south of the Arctic Area in the west is the Mackenzie Area which includes most of Alaska. These Indians, Athapascans for the most part, used to live upon the caribou which furnished them with meat for food, skins for clothing, sinews for thread. They snare other animals, net fish and eat berries and roots. They have no pottery, but make baskets of roots. They make canoes of bark, and travel in winter on snowshoes and toboggans and to some extent use dogs. The disappearance of the caribou from many localities has forced some to live upon fish or upon supplies from the trading-posts.

To the east and southeast we have the Eastern Woodland Area including Eastern Canada and the northeastern quarter of the United States. The inhabitants were chiefly Algonkian and Iroquoian, who built houses of poles and bark, dressed in skins, wore moccasins with soft soles, wove a little bark, used bows and clubs but no lances, made in some districts pottery of rather poor grade, and usually boiled by placing hot stones in wooden or bark vessels. They used both bark canoes and dugouts, were fair fishermen and good hunters and trappers. In winter they used snowshoes and, occasionally, the toboggan. The Iroquois and a few Algonkian tribes practiced

agriculture, raised corn, squashes and beans, and made maple sugar, while some of the Algonkians who did not till the soil, notably the Ojibwa, gathered large quantities of wild rice. The more northern tribes, as the Montagnais and the Cree, lived solely by hunting and fishing, and often used tents of caribou skins.

### *Southern Culture Areas*

In the Southeastern Area the tribes, Muskhogean or the Iroquoian Cherokees, lived in fortified towns, plastered their houses with clay, dressed in woven stuff as well as skins, and made beautiful feather cloaks. They made excellent weapons and utensils of stone, used darts and blowguns as well as bows, made good baskets and pottery. They hunted the bison, deer and bear, turkeys and small game, and caught fish, but made great use of vegetable food, both cultivated and wild. They raised corn, sorghum cane, pumpkins, melons and tobacco, made oil from bears' fat and from hickory-nuts, and also made bread.

Next we have the Southwestern Area of Arizona and New Mexico, extending into Mexico, inhabited by the Pueblo Indians and by certain nomadic tribes. The Pueblos depended chiefly upon vegetable food, understood irrigation and raised considerable crops, including cotton. They were chiefly clothed in woven fabrics of various colors and hard-soled moccasins. They made pottery decorated in color, and domesticated the turkey. As there was little water they had no boats. Some of the tribes did some hunting and others traded their product for fresh meat. They knew little or nothing of metal work. Their religious ritual was highly complicated. Some of the nomadic tribes of this area were influenced by the Plains culture to which we now come.

### *Indians of the Plains*

The Plains Area stretched from the Prairie Provinces of Canada down into Texas. Thirty-one tribes of several racial stocks ranged this vast area and all lived more or less in the same way. Some practiced no agriculture or fishing but

lived chiefly upon the buffalo. They had no pottery and wove neither baskets nor cloth, but were clothed in buffalo or deer-skin, or hardly clothed at all. Their usual dwelling was a movable wigwam or tipi covered with skins. A few tribes cultivated a little ground, made some pottery and baskets, and occasionally built houses which they covered with mats, brush or bark. They ornamented their garments with colored porcupine quills, and wove feather headdresses. When the white man brought the horse, they adopted it and many tribes became wonderful horsemen. They adopted the white man's beads also and made elaborate designs. Their religious ritual was less highly developed than in the Pueblo region, and the "medicine man" was more prominent. Every year, for about a fortnight in midsummer, they held an elaborate and picturesque ceremony called the sun dance.

#### *In the Plateau Area*

To the west of this area was the Plateau Area of British Columbia, Washington, Oregon, Idaho and Wyoming. These Indians were chiefly Salishan who lived in tents in summer but the winter house was a circular pit which they lined with logs and covered with a conical roof. Clothing was almost entirely of skins though some bark fibre was woven, and they made excellent baskets. They were ardent fishermen and dried salmon for winter use. They had no pottery but cooked with hot stones. They made stone tools and weapons, used the club, lance and knife as well as the bow and wore armor in war. They were indifferent woodworkers and their bark canoes and dugouts were crude.

#### *From California to Alaska*

Two more areas remain to be described. In the California Area, the culture was simple. The Indians lived in huts of brush or rushes, and depended largely upon acorns and other wild seeds. They had no canoes but used crude rafts. They wore little clothing, and their feet were often bare. Most of them made no pottery, but their basketry was advanced.

They were indifferent hunters and fishermen. The southern tribes of this area, however, were influenced by the Pueblo culture, and the northern by that of their neighbors of the North Pacific Area to which we now come.

This area stretched from California to Alaska, and was inhabited by many tribes of several racial stocks. Their culture was rather complex. They were the best workers in wood on the continent, built large houses of planks of split cedar with carved posts and totem poles. They had large dugout canoes, some of them with sails, and depended largely upon the sea for their livings, but made much use of berries. They had little or no agriculture, and made no pottery, but did make excellent baskets. They did little weaving, though some tribes made blankets of goats' hair. Their clothing was chiefly of skins, and they were the only Indians to wear hats of basketwork to shed rain. After they obtained tools of steel, their carving became more elaborate, though the artistic quality deteriorated. They worked a little in copper before the white man came, but had no other metal.

#### *The White Man and the Indian*

The relation of white man and Indian is a long, and, on the whole a depressing story, which would require many books to tell. The white man needed the land and took it. More often than is generally supposed he went through the form of purchase in the early days. The difficulty was that the Indian could not understand the white man's theory of absolute possession. He thought he was selling the right to use the land, and could not understand that he was giving up any right to use it himself. When the white man became stronger, he assigned lands to the Indian and forced him to live upon them. In many cases, in the United States more particularly, he has taken away the assigned lands, wholly or in part when he desired them for any reason, and assigned to the Indian inferior land, often worthless for any purpose.

Though there are a few Indians in every one of the United States, most of





SMITHSONIAN INSTITUTION

**THE KIWAS** once lived in the headwater region of the Yellowstone, Missouri and Canadian rivers. They were regarded as one of the most bloodthirsty of the prairie tribes until finally subdued in 1875. Once living on a reservation in Oklahoma, each now lives on his own farm. Much of the tribal land was opened to settlement in 1901.





BROWN BROTHERS

**TWO GUNS WHITE CALF** is the name of this Piegan (Blackfoot) chief. His father White Calf was a famous chief when the tribe gave up what is now the Waterton Lakes National Park in Canada and the Glacier National Park in Montana. He is said to have sat for the artist who designed the United States nickel coin, and frequently poses for others.



them live upon reservations set aside for them in twenty-six states. There are representatives of about two hundred tribes on these reservations, and fragments of many other tribes live elsewhere. On some of the reservations the Indians have been encouraged to work for themselves, even though rations were issued to them by the Indian Agent. Those who showed industry and ability have had land allotted to them individually. While some have proved unable to support themselves, many others have been successful as farmers or stock-raisers, and some reservations have been entirely divided. Where larger than necessary, parts of the reservation have been sold and the funds placed to the credit of the members of the tribe. Where oil or coal has been found upon Indian lands some individuals or even whole tribes have become wealthy. It is hoped that in time all the Indians may become self-supporting.

### *Provision for Indians*

As yet the United States is spending millions of dollars every year upon the Indian service, and for food, clothing, schools and hospitals. Some of the schools are excellent but more are unsatisfactory, and the whole provision for Indian education is scanty, though increasing. The hospital facilities are good so far as they go, but provision is entirely inadequate for the need.

When the Indian lived almost entirely in the open air he seems to have been reasonably healthy, even though he did not consciously observe any rules of sanitation. When he began to live within walls, eat the white man's food, wear his clothes, and live more or less as the white man does, without knowing any of the rules of health which the white had slowly learned by experience, he suffered severely. He fell a prey to many diseases which he had never known before, and the white man's rum has also injured him morally and physically.

### *Indians in the United States*

In 1924 all Indians were made citizens of the United States but the states gen-

erally have not changed their laws to fit the new status. The largest numbers of Indians are in Oklahoma (119,335), in Arizona (46,901), in South Dakota (23,124), and in California (18,912). Minnesota, Montana and Washington are next. The highest average of civilization is among the Indians of Oklahoma, many of whom are prosperous and successful. As said elsewhere, many Indians have left the tribe and are able to maintain their positions in competition with white men in the white man's world.

### *Canada and the Indian*

Canada's early attitude and conduct toward the Indians were marked by greater humanity than was shown by the United States. A sense of responsibility for their welfare developed before there was any great need for the lands occupied by the Indians, and they live to-day reasonably content upon the reservations allotted to them either by the separate Provinces or by the Dominion. They are treated as minors in law and are protected and guarded through more than a hundred agencies. In exceptional cases they may become citizens, but care is exercised in enfranchising them.

Provision is made for Indian education and aid is given in agriculture, stock-raising, hunting, trapping and miscellaneous pursuits. In 1926, nearly 225,000 acres were under cultivation, and much more was cleared. Among the more northern tribes the lessening of the game supply and the ravages of tuberculosis and other diseases cause much hardship, which the government is attempting to ameliorate. On the whole the Indians in the agricultural areas of Canada, except British Columbia, are improving economically, though elsewhere their numbers seem to be decreasing.

There are Indians in every Province as well as a few thousand in the Yukon and the Northwest Territories. The largest number is in Ontario (26,436) with British Columbia next (22,377), while there are only 235 on Prince Edward Island. The numbers in the other Provinces fall between these extremes.

# THE DOMINION OF CANADA

## *The Development of a Colony into a Nation*

Canada comprises most of the northern half of North America, and has a population greater than that of many older nations of the world. Originally settled by peoples of diverse languages, religion, customs and laws, a distinctive Canadian consciousness has developed, and the citizens look with pride upon their past and face the future with confidence. In this and other chapters, the story of the past will be told, but more space will be given to the present. Room will also be found to tell of the marvelous natural resources and the wonderful scenery of the great area. Many of the sights of Canada deserve to be better known. We shall also trace what man has done in his westward march from the Atlantic Coast to the shores of the Pacific Ocean.

THE term "Dominion" immediately focuses the mind on Canada—great not only in extent but in contrasts, in present assets and in potential riches.

Canada comprises the northern half of the continent of North America and its islands, excepting Alaska which belongs to the United States, and Newfoundland a separate dominion. Variety is a characteristic of its scenery; from the miniature landscape one passes to scenes overwhelming in grandeur and coloring. Rivers and lakes, waterfalls and forests, green valleys and snow-capped mountains, acres of orchards and miles of grain, these are some of the things the traveler sees as he travels from Atlantic to Pacific. To the north lies the Arctic, its fastnesses yielding every year before the onset of explorer, missionary, miner.

The land area of the Dominion is 3,684,723 square miles, or not much less than that of all Europe. It extends from latitude 42° N. to far within the Arctic Circle. The northward-flowing Mackenzie, which is an entirely Canadian river, is 2,500 miles long from its source to its mouth at the Arctic. The eastward-bound St. Lawrence is navigable for large vessels east of Montreal, and drains five large lakes, of which Superior alone is 31,800 miles in extent.

From a geological standpoint this territory can be divided into six natural provinces, which give to the country its physical appearance.

The Canadian Shield (or Laurentian Plateau), the oldest and largest of these

divisions, covers slightly more than half of the entire area and presents a rugged and exceedingly rocky country of hills that do not commonly exceed 300 feet in height. It extends from the Atlantic on the east to a line drawn through the Lake of the Woods, Lake Winnipeg, Great Slave Lake, Great Bear Lake to the Arctic. A large amount of water in the irregularities of the rock floor forms innumerable ponds and lakes of the most diverse size and shape which spill from one to another by short streams. Occasional areas such as the clay belt of northern Ontario and Quebec, where deposits are thick enough to conceal the rock floor, constitute the only agricultural land. Elsewhere, mineral wealth, water power and forests are the main resources.

The St. Lawrence plains or lowlands are level, agricultural plains, bordering the Canadian Shield on the south. Though only 36,000 square miles in extent they contain more than half the population of Canada. They comprise three plains which extend at successively higher elevations from Quebec westward to Lake Huron for 600 miles. This natural farming district has become a manufacturing district too, because ocean steamers can come up the St. Lawrence to Montreal and from Montreal smaller steamers can penetrate up through the Great Lakes. Moreover, water power is cheaply procured from the falls of the St. Lawrence.

On the northern shelf of the Canadian Shield lie the Arctic Archipelago and





Courtesy Victoria & Island Publicity Bureau

### BUTCHART'S SUNKEN GARDENS, NEAR VICTORIA, BRITISH COLUMBIA

Not many years ago the site of these gardens was a yawning chasm from which material for cement had been quarried. Mr. Butchart had thousands of loads of rich loam brought in, an artificial lake was made, and vines, flowers and shrubs soon covered the unsightly pit. Now the garden, which is open to the public, is one of the show spots of the continent.

Hudson Bay Coastal Plain. These form a fringe to a tableland that is uptilted on the east side and gives way on the northwest to depressions occupied by the Arctic Sea. Though this region has a land area of about 500,000 square miles, it supports only a few thousand Eskimos and a small white population. Furs and fish are the only useful products, but deposits of coal and metalliferous ores promise greater revenue.

The Appalachian (or Acadian) region, a rough, sometimes mountainous, region of mixed rock formations, covers southeastern Quebec and the Maritime Provinces, forming the northern end of the Appalachian system of eastern North America.

Weathering and glacial action have worn down the hills of the Acadian region, particularly on their southeastern border, so that the landscape of the Maritime Provinces consists of woody, rocky highlands and level, rich, agricultural low-

lands watered by winding rivers. Prince Edward Island is a lowland area almost entirely arable, which nowhere rises 500 feet above the sea. In Quebec the hills are much higher.

Buttressing the western side of North America is a system of mountains far more extensive and imposing than the Appalachians. This Cordilleran system extends, with a width of 400 to 1,100 miles, from the northwest corner of Alaska to the Isthmus of Panama, a distance of 4,300 miles. In Canada alone it occupies 620,000 square miles. It is made up of two nearly parallel major mountain systems, separated by a belt of lower mountains and plateaus. Thus we have the Coast Range, the Interior Belt, and the Rocky Mountains. Outside the Coast Range lies another parallel range in a submerged condition, of which Vancouver Island and Queen Charlotte Island are projecting ridges. On the Pacific Coast the annual rainfall ranges



## THE DOMINION OF CANADA

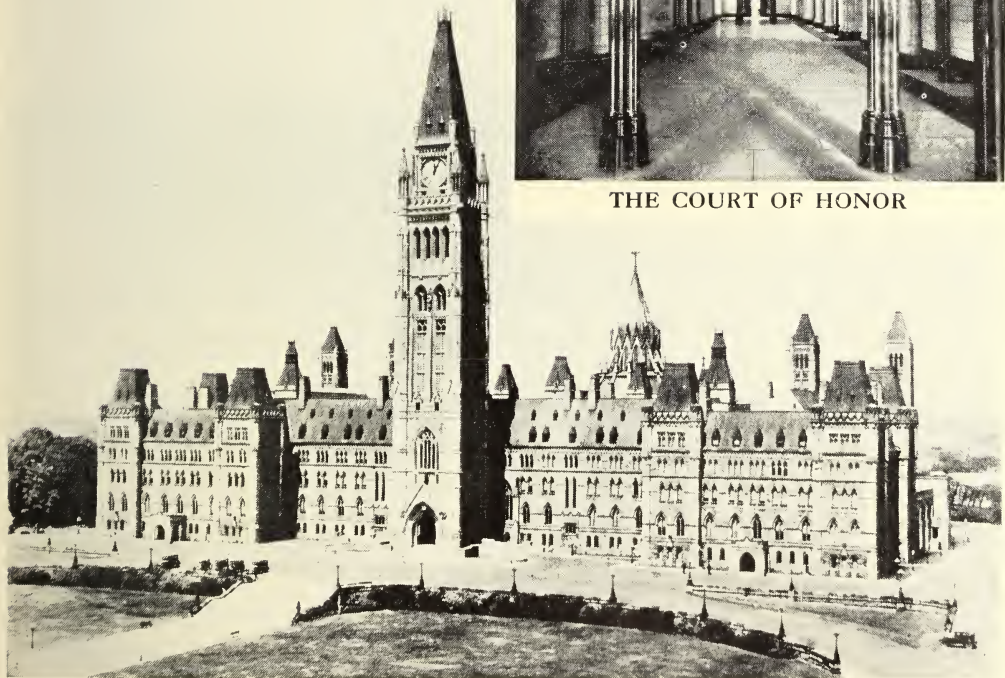
from 56 inches at Vancouver to 300 inches near Prince Rupert. This diminishes to 20 or 30 inches over much of the Interior Plateau region, owing to the effect of the mountains intercepting moisture carried from the Pacific by the prevailing westerly winds. Agriculture is confined to narrow river valleys, but these valley bottoms are generally very fertile. Valuable forests cover much of the region. Gold, copper, lead, zinc and other metalliferous wealth are to be found in the Coast Range.

Between the Cordilleras and the Canadian Shield lie the great plains, a triangular area of 635,000 square miles which constitutes by far the largest agricultural section of Canada. The land is drained by long rivers flowing either into Hudson Bay or by way of the Mackenzie River to the Arctic. An area of 20,000

square miles in southern Alberta and Saskatchewan lies within the basin of the Mississippi. These plains grow wheat unsurpassed in all the world. Formerly great cattle ranches existed, especially where the land begins to slope up to the Rocky Mountains, but grain-growing has proved more profitable and to-day nearly all of the large ranches have disappeared.



THE COURT OF HONOR



Courtesy Canadian Pacific Railway

THE NEW HOUSES OF PARLIAMENT AT OTTAWA

The former Parliament Building was burned in 1915, but rebuilding soon began, and now few legislative bodies anywhere are housed more splendidly. The building is constructed almost entirely of Canadian material, and the interior is embellished with paintings and statuary. The spire behind the building belongs to the Library of the Dominion.



In 1492 Columbus discovered America. Very soon the Spaniards and Portuguese made their way into the new lands; Balboa saw the Pacific; Magellan rounded the continent to the south, and far to the north fishermen came yearly to the rich sea-harvest of the Banks. The French under Jacques Cartier explored the St. Lawrence as far up as Montreal. But for more than a hundred years there were few attempts to found colonies. Men tried to find treasure or the western passage to Asia, whose riches they dreamed would give world rule. The sixteenth century saw tentative efforts at colonizing, by the French under the Sieur de Monts at Port Royal in Acadia, and under Champlain at Quebec. And then a new lure beckoned—rich furs, the treasure of the frozen North. Two nations found their way to Hudson Bay: the English and the French. Trading-posts were established, settlements begun.

The French struck boldly inland, using rivers and lakes as highways, trusting to them as lines of communication in extended explorations. Meanwhile the English spread themselves up and down the Atlantic coast and gradually consolidated their possessions from Spanish Florida to the debatable land north—now Acadie, now Nova Scotia, according to whether French or English possessed it. During the eighteenth century England challenged the power of France in Europe and in the New World. The French commanders thought of securing freedom from England by a *cordon militaire* to extend along the St. Lawrence, Ohio and Mississippi rivers, from Cape Breton, the Gibraltar of the St. Lawrence, to New Orleans on the Gulf of Mexico. Meanwhile the English had crossed the coast range, confining their settlements, and looked down upon the rich lands and resources of their rivals. They resolved to

thrust the French back, north and west. For more than half a century intermittently the struggle raged; finally in 1759 Quebec was captured, and in the Peace of Paris France was left without a mile of territory on the mainland of North America.

Of what did the Canada of 1763 consist? Quebec and Nova Scotia, with the little Prince Edward Island, were the only inhabited parts of the country, and even in these provinces, except on the seaboard and along the banks of the St. Lawrence, the population was sparse and French in blood. After the American Revolution came a great change. Some thousands who wished to remain British subjects left the United States and settled in Nova Scotia; their settlements along the river St. John were made into a separate province under the name of New Brunswick. Others found a home in Prince Edward Island (declared a separate province in 1769): while many turned farther west, establishing themselves along the St. Lawrence, on the northern shore of Lake Ontario, and even in the forests. English



Photograph by Macaskill

#### STREAMS THE FISHERMAN LOVES

The beautiful Tusket River rises in Digby County but flows for most of its length through Yarmouth County. Both trout and salmon are caught, and there are also many lakes full of trout in the region which it drains.



Photograph by Macaskill

#### AN ACADIAN WOMAN SPINNING

After their expulsion in 1755, many Acadians returned to their old homes. They are generally a conservative people who have retained many of their old habits, manners and customs.

soldiers, disbanded from the wars, swelled their numbers.

Their coming necessitated a change in government. The Quebec Act of 1774 had been framed to suit the mass of people who were French. In 1791 the Constitutional Act cut Quebec into Upper and Lower Canada, and provided forms of government suitable to each racial unit. Fifty years later Upper and Lower Canada were again united and given equal representation in the Legislature. Meanwhile the Maritime Provinces had been trying to bring about some sort of federal union, which would leave each unit free to take care of its own local affairs, but provide a common parliament on a basis of population to take care of matters common to all. Such a scheme would end also the state of deadlock which was apt to arise in the province of Canada, and for this and other

reasons Quebec and Ontario (into which parts the United Province of Canada had been divided) joined with Nova Scotia and New Brunswick in an Act of Confederation, 1867, and the Dominion of Canada began.

Then it became possible to reach out to add to their territory the vast stretches of land in the great Northwest and in 1869 the Hudson's Bay Company surrendered its right to monopoly of trade and government in the great area stretching to the Rocky Mountains.

Manitoba came into the Confederation soon after, and then British Columbia. In 1873 Prince Edward Island turned to the Dominion. Only Newfoundland remained outside. Meanwhile the great Canadian Pacific Railway which was to open up the West was finished, and four districts, Assiniboia, Saskatchewan, Alberta, and Athabasca took shape. In 1905, these became provinces of the Dominion, as Alberta and Saskatchewan. The Yukon region, created as a district in 1897 after the discovery of gold, passed under the direct control of the Dominion Government. The remainder of the northern country, organized first into districts, has been in part distributed among neighbor provinces; the other parts, under the name of the Northwest Territories, are



Courtesy Natural Resources Intelligence Service

#### BAKING BREAD IN AN OUTDOOR OVEN

Old-fashioned ovens for baking bread built out of doors still are found in some rural sections of Quebec. The Gaspé Peninsula has been little influenced by modern ideas of speed and efficiency and old customs continue to rule.



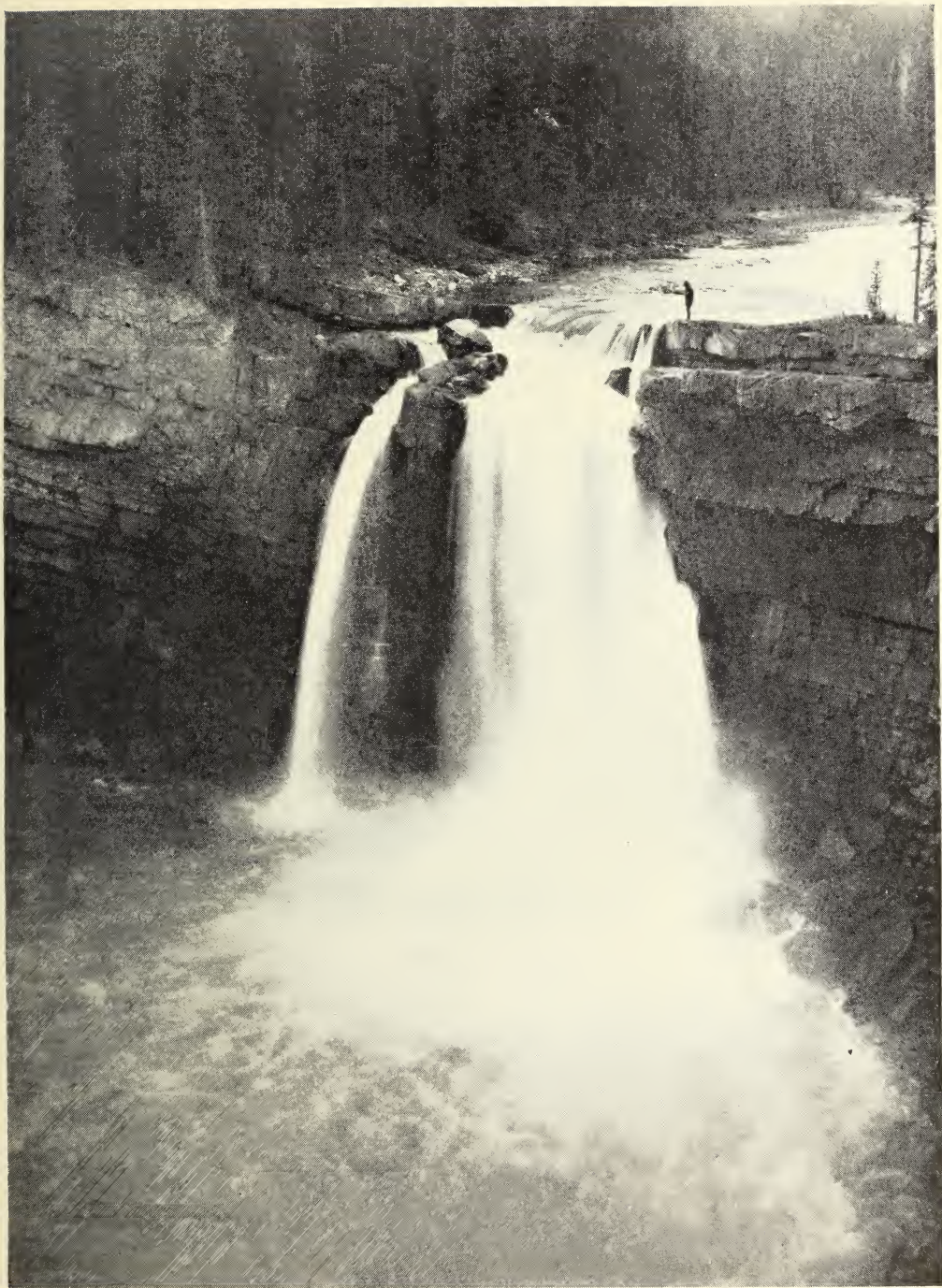


Courtesy Commissioner of National Parks

### CAMP IN BYNG PASS, JASPER NATIONAL PARK

The northern part of Jasper National Park is only partly explored, but many miles of trails have been cut chiefly along the rivers so that much wild country may be traversed. Byng Pass is reached by following the middle branch of the Snake Indian River to its source near Hoodoo Peak. The trail then leads through the pass to Twin Tree Lake and from thence over the Divide into the valley of the Smoky River. This region is the haunt of much game, and even more is to be found in the country to the north of the Park.





Courtesy Commissioner of National Parks

#### **LOWER FALLS, SNAKE INDIAN RIVER, JASPER NATIONAL PARK**

Following the trail up the Snake Indian River, one reaches a point where the river narrows and plunges over a precipice more than eighty feet high. Though there are many waterfalls in the Canadian parks, these are second only to the Emperor Falls near Mt. Robson. A short distance below the falls is a "salt-lick" which has been visited by the hooved animals of the region for many generations. Sometimes a hundred or more goats or bighorns may be seen at one time enjoying the treat Nature has provided for them.





#### NIAGARA FALLS FROM THE CANADIAN SIDE. A VIEW

The Niagara River, 33 miles long, connects Lake Erie with Lake Ontario, 326 feet lower than Lake Erie. About half a mile above the Falls the river is divided by Goat Island, but over 95 per cent of the water passes to the left to make the Horseshoe or Canadian Falls, shown on the right. The width, measured along the arc, is nearly 3,000 feet and the height 158 feet.

governed by a commission and a council.

Canada has a government for the Dominion as a whole, as well as a government for each of its nine provinces, for the Yukon Territory, and for the Northwest Territories. Partly by action of the British Government, partly through the logic of events, the actual position of Canada has changed since 1867. It is now recognized as a co-equal member of the British Commonwealth of Nations under a common sovereign, and as such belongs to the League of Nations, makes treaties and sends ministers to those

countries with which its relations are particularly important. The King is represented by a Governor-General whose duties are advisory rather than executive, and the Parliament of Canada legislates for the Dominion.

The Parliament of Canada is made up of two houses, the Senate and the House of Commons. There are 96 Senators, appointed by the Governor-General, on the advice of the Cabinet, and holding office for life. The members of the House of Commons are elected by the people and may hold office for five years.





© A. G. Landreth, courtesy "In the Mist"

### FOR WHICH THE PHOTOGRAPHER WAITED EIGHT YEARS

The American Falls are 1,060 feet wide and the height is 167 feet. The Falls have cut their way back from Lewiston, about seven miles, making a deep gorge, and are still receding. The ledges over which they pour are constantly being undermined, and great masses of stone now and then fall from the edge. In the distant future they may reach Lake Erie.

The people of Canada are of two dominant races. The native Indians amount to only 1.26 per cent. The original French colony, numbering 75,000 at the date of the Conquest, has expanded to two and a half millions to-day, or nearly twenty-eight per cent of the entire population. The British, including those of Irish, English, and Scotch origin, account for fifty-five per cent and the remainder is divided in somewhat small proportions among Continental Europeans of all the leading nations, a few Asiatics and a few Hebrews. There are also a very few

Negroes—18,291 in 1921—but they make up only a little more than one-fifth of one per cent of the total population, and the proportion is decreasing.

Immigrants from Norway, Sweden, Denmark, and Galicia are found more largely in rural communities than in urban ones. On the other hand only a small proportion of Greeks, Italians, or Poles settle outside of cities or towns. Asiatics resident in Canada dwell in cities, except the Japanese who are engaged in truck gardening in suburban areas, and in fishing on the Pacific Coast.



## THE DOMINION OF CANADA

### THE DOMINION OF CANADA: FACTS AND FIGURES

#### THE COUNTRY

Comprises the northern half of the continent of North America and its adjacent islands, excepting Alaska (United States) and Newfoundland, still a separate Dominion in the British Empire. Gross area, 3,797,123 square miles, and the land area is 3,654,200 square miles. Total population in 1921 was 8,788,483.

#### GOVERNMENT

A self-governing Dominion of 9 provinces within the British Empire; executive power vested in Governor-General and Privy Council. Legislative power exercised by Senate of 96 members (appointed for life) and House of Commons of 245 members (elected). Women have parliamentary franchise and are eligible to both houses. Each province has a separate Parliament and administration under a Lieutenant-Governor appointed by the Federal Government.

#### COMMERCE AND INDUSTRY

Country is largely agricultural; grain-growing, dairy-farming, fruit-farming, ranching and fur-farming are carried on successfully. Chief crops are wheat, oats, barley, potatoes, rye, mixed grain, apples, peaches, pears and small fruits. Valuable timber and water power resources. Salt and fresh-water fishing carried on. Coal, gold, copper, nickel, lead, silver, asbestos and zinc are mined. Chief manufactures are wood and paper products, iron and steel, agricultural products, animal products and textiles. Chief exports are wheat and wheat flour, animals and their products, paper and paper products, wood, wood pulp, iron and iron manufactures, other metals and furs. Chief imports are iron and steel manufactures, coal, petroleum and textiles.

#### COMMUNICATIONS

System of canal, river and lake navigation with total of 2,700 miles. Railway mileage, 42,224, about half operated by government. Length of telegraph wire, 323,539 miles; telephone wire, 3,306,214 miles. There were 723 wireless stations in 1928.

#### RELIGION AND EDUCATION

No established church, but certain rights are guaranteed to the Roman Catholic Church in Quebec; many denominations represented. Education under provincial governments. Elementary and secondary education is almost entirely state-controlled except in Quebec, where primary education is only partly state-controlled. 2,017,573 pupils in elementary and secondary schools. Many colleges, 6 state-controlled universities; 17 universities independent of provincial control.

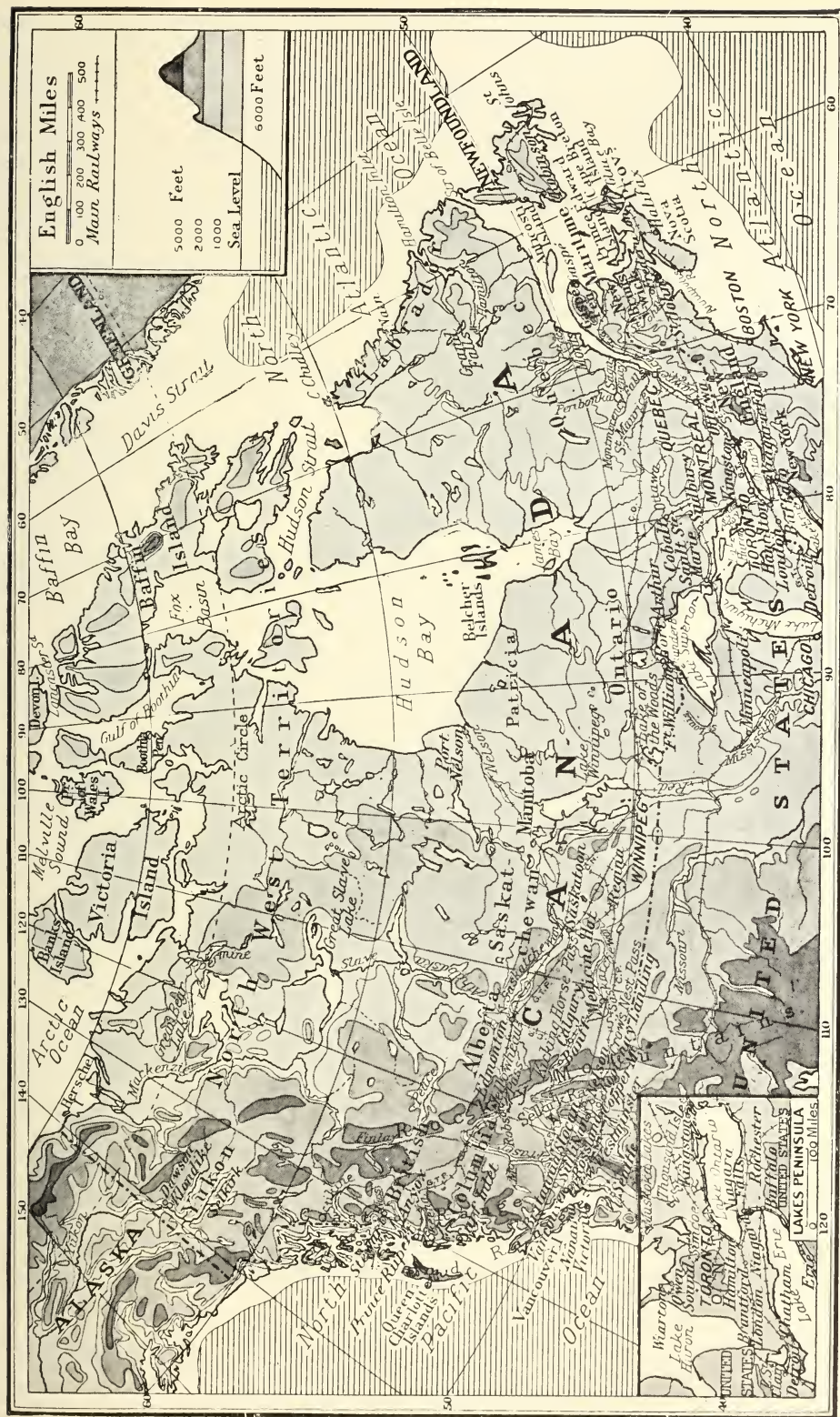
#### CHIEF TOWNS

Population in 1928: Montreal, 952,875 (1926); Toronto, 569,899; Vancouver, 250,000; Winnipeg, 191,998 (1926); Quebec, 126,000 (1926); Hamilton, 127,447; Ottawa, 121,000.

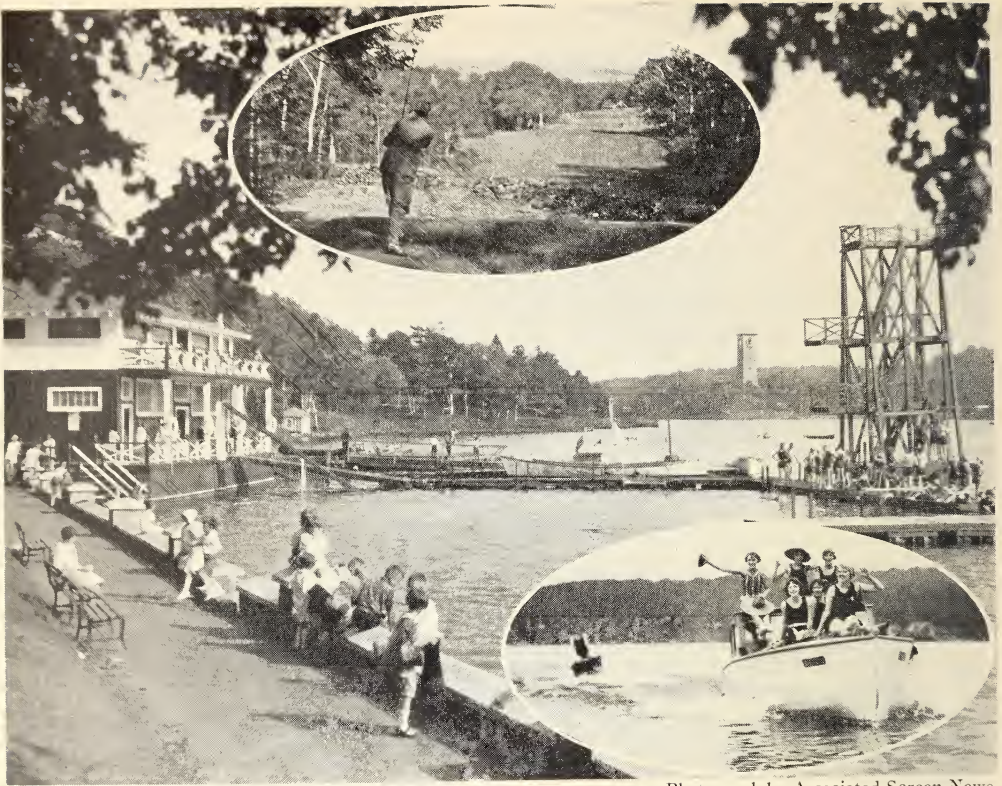
THE PAPER AND PULP MILLS OF THE ABITIBI POWER AND PAPER COMPANY AT IROQUOIS FALLS, ONTARIO  
This mill located at Iroquois Falls on the Abitibi River in northern Ontario is one of the largest if not the largest producer of "newsprint," as the paper used by newspapers is called, in the whole world. Canada has become the largest manufacturer of this class of paper.











Photograph by Associated Screen News

## AROUND THE WAEGWOLTIC CLUB AT HALIFAX, NOVA SCOTIA



Photographs by Macaskill (insets and lower)

## NOVA SCOTIA IS A WONDERFUL PLAYGROUND

Few regions offer more attractive facilities for recreation than Nova Scotia. The upper pictures explain themselves. In the lower summer visitors in Halifax are enjoying a band concert at a boat club located on the North West Arm as the inlet which stretches behind the city is called. Every year Nova Scotia receives many summer visitors.

# THE MARITIME PROVINCES

## *Nova Scotia, Prince Edward Island, New Brunswick*

The Maritime Provinces of Canada, so called because they project into the sea, were the first to present themselves to the explorer and the settler of Canada, and still preserve some of the evidences of respectable age. They have sent many of their sons and daughters to the great cities, the newer lands of the West, or to the United States and therefore have not increased in population so rapidly as some other parts of Canada. However, there is a charm about the region and its people which is not always apparent in some of the newer provinces. Many distinguished citizens of Canada were born in one or another of these three provinces of the Dominion.

THE geographical unit, popularly known as the Maritime Provinces, consists of Nova Scotia, New Brunswick, and Prince Edward Island. Geologically, it occupies the northeastern end of the great Appalachian system of North America. Rolling, rocky, wooded highlands, separated from each other by level fertile lowlands watered by winding rivers, characterize the scenery and give peculiar charm to the landscape.

Nova Scotia or Acadie, as it was called according to its English or French ownership, was settled by French Huguenots under the *Sieur de Monts* in 1604. The site, an island in Passamaquoddy Bay, was bad and in the spring a move was made to the opposite coast of Nova Scotia, where Port Royal (afterward called Annapolis by the English) was chosen. From this point French settlers moved slowly up the Annapolis River, and especially into the marshes about the head of the Bay of Fundy.

Great Britain also claimed the region and in 1621 Sir William Alexander received a charter from James I for the settlement of lands between Gaspé Bay and the St. Croix River. For nearly a hundred years, the land was tossed between France and Great Britain. In 1713 the French ceded Acadie to Great Britain, retaining Cape Breton and the fortress of Louisbourg, and finally in 1763, France gave up all claims.

While France held Acadie, she neglected it, as England was to neglect it at first. Acadie was not only the flank of both British and French settlements in

Canada, but it possessed also valuable raw materials which for a hundred and fifty years were only slowly appreciated: the land was covered with evergreens suitable for masts, and valuable hardwoods; fur-bearing animals and edible game were plentiful even on the peninsula, while the rivers flowing from the west and north into the Bay of Fundy drained a district rich in furs; its shores abounded in superb harbors with shallows and beaches for drying and afforded a base for the rich gulf and banks-fishing.

During the struggle for the region the unfortunate Acadians were caught. They were believed by the English governor to be the recruiting ground of his French enemies, and looked upon as unprofitable and unenthusiastic subjects of the Crown in Nova Scotia. Their expulsion was determined upon; over six thousand peaceful farming folk were rounded up and hurriedly placed in transports and distributed from Massachusetts to South Carolina; others took refuge in the forests of what are now New Brunswick, Prince Edward Island and Quebec; some escaped to the French possessions in the Ohio Valley and Louisiana. Many lost their lives from starvation, exposure, shipwreck and the hazards of war. For eight years destruction and dispersal went on. Only the coming of peace in 1763 put an end to it. Then individuals and groups began to find their way back to their homeland and although they could not take up their old properties, they found hiding places here and there in the three Maritime Provinces of





Photograph by Macaskill

### ACADIAN BOYS GATHERING EEL GRASS ON THE SHORE

After their expulsion, in 1755, many Acadians slowly drifted back to their old region and now they make up a considerable proportion of the population of all the Maritime Provinces. Here we see Acadian boys in Nova Scotia gathering the eel grass thrown up by the tide.

Several boys can make pleasure of what would be a task for one.

Canada. They have greatly prospered, so that, besides the thousands still in exile, their descendants form over twenty per cent of the population of these provinces to-day.

Into the empty lands a company of German immigrants was soon brought. Their descendants can be found now in the county of Lunenburg. After the American Revolution many United Empire Loyalists came to Nova Scotia, and about 1775 a large number of Highland Scotch settlers arrived in Cape Breton and in the region of Pictou, where to-day they predominate. Natural increase and immigration from Europe from year to year have brought the population up to about half a million.

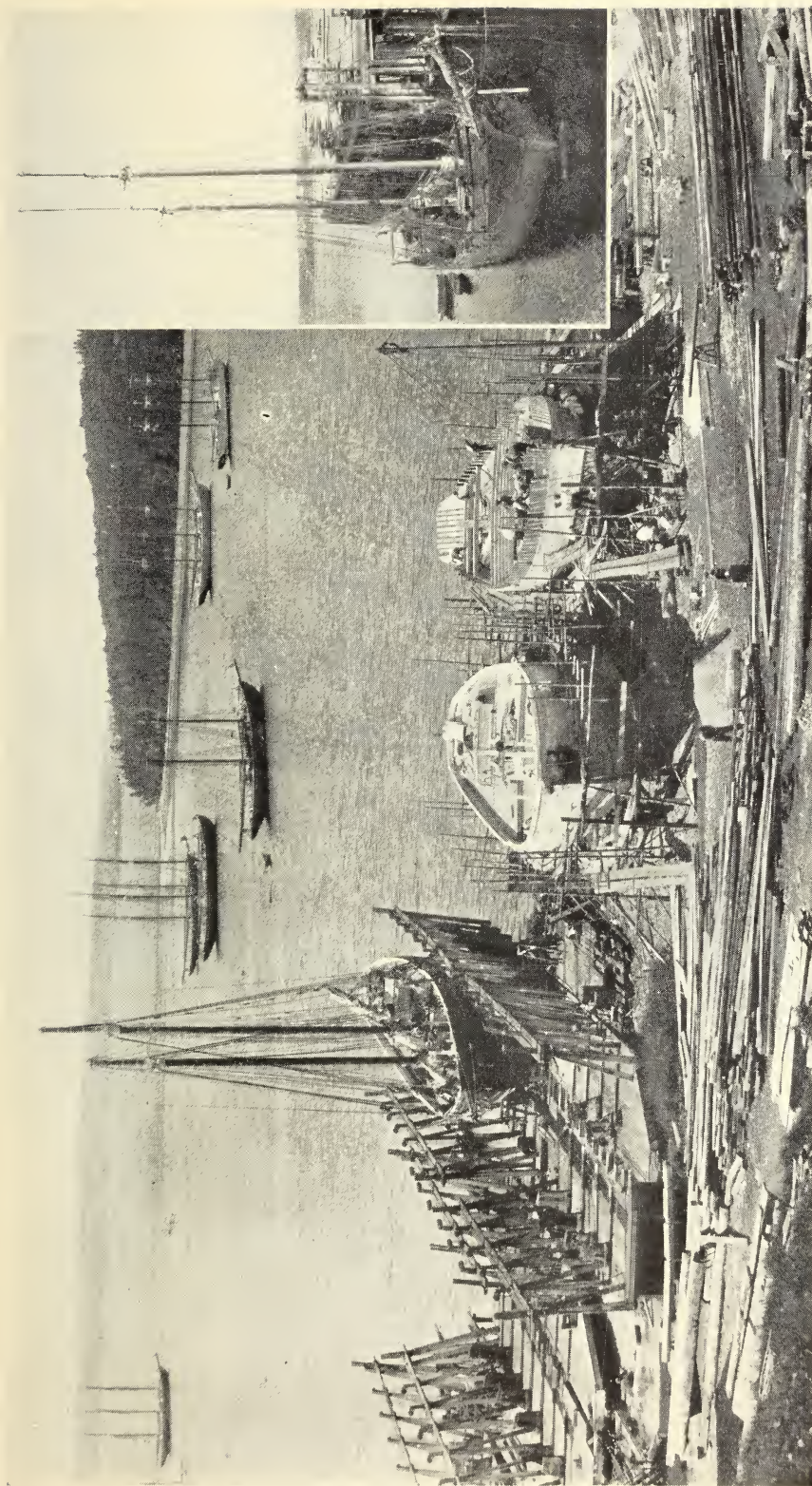
Nova Scotia itself consists of the peninsula proper and the island of Cape Breton. Except for the low narrow isthmus connecting it with New Brunswick, Nova Scotia too would be an island. The Atlantic Coast from Cape Canso to Cape Sable is high and bold, cut into by many excellent harbors, of which Halifax is the chief. The north coast is low, with hills lying inshore. Pictou is the principal inlet. A ridge of precipices runs for thirty miles along the Bay of Fundy, from Digby Neck, culminating in lofty capes, Split and Blomidon (Blow-me-

down). Behind these is one of the greatest apple-producing regions in the world. Chains of hills intersect the country. They are not very high, about 1,100 feet, and cultivable almost to their summits. North of these hills the country is less rugged. In the east the land slopes gradually to the Gulf of St. Lawrence. To the west the great tides of the Bay of Fundy are held back by a range of hills, the North Mountains. Minas Bay, the most eastern inlet of the Bay of Fundy, penetrates about sixty miles inland and terminates in Cobequid Bay where the tides sometime rise as high as fifty-three feet.

Separating Nova Scotia from Cape Breton is the Strait of Canso, but the two portions of the province are to-day connected by rail. Sections of the train are shunted on a steamer at Port Mulgrave and in less than twenty minutes the rails on the ship and the main track to the north are again united. Cape Breton is about one hundred miles long and eighty-five miles wide, and is hollowed out by a very remarkable arm of the Atlantic, the Bras d'Or Lakes, justly noted for their scenery and good fishing.

North and west of the lakes are the Sydneys—Sydney, North Sydney and Sydney Mines—where deep coal fields





Courtesy Canadian National Railways; (inset) Canadian Pacific Railway

### ON THE PLEASANT SHORES OF NOVA SCOTIA

The pleasant town of Lunenburg was founded in 1753 by German and Swiss immigrants and traces of its Teutonic origin persist. In the days of wooden ships the shipyards were important, and many small vessels are still built. Lunenburg is an important fishing centre and some of

the fastest boats of the fleet have their headquarters here. Digby (inset), across the peninsula, just off the Bay of Fundy, naturally has high tides. There are fishing and lumber industries, and the town has become an important summer resort.



extend out under the Atlantic, and where the huge iron and steel works of the British Empire Steel Corporation illuminate the blackness of the night. These works use iron ore brought from Newfoundland, and coal and limestone from the mines near the works. Other coal mines are to be found in Cape Breton, and Pictou on Northumberland Strait has in the Ford seam of thirty to thirty-five feet one of the world's thickest seams of clean coal.

### *Halifax, the Ocean Gateway*

The most impressive approach to Nova Scotia is by way of Halifax, one of the most beautiful harbors in the world. We speak more of it and of Dartmouth, near by, in the chapter on cities. From Windsor, long the seat of King's College, and once the residence of Judge Haliburton, the creator of Sam Slick, we approach historic, beautiful country. From a high point near Windsor we gaze down upon the lovely valleys of the Gaspereau and Cornwallis, and the majestic "blue crest" of Blomidon, seat of legend and superstition. We shall take the road to old Grand Pré and see what Longfellow saw:

Vast meadows stretched to the eastward,  
Giving the village its name, and pasture to  
flocks without number;  
Dykes that the hands of the farmer had raised  
with labour incessant,  
Shut out the turbulent waves; . . .  
West and south there were fields of flax and  
orchards and cornfields  
Spreading afar and unfenced o'er the plain;  
and away to the northward  
Blomidon rose, and the forests old.

The Evangeline Memorial Park at Grand Pré contains, besides a statue of Evangeline by Hébert, the ruins of an old Norman chapel built by the Acadians.

### *Apple Blossom Sunday*

Now the famous Nova Scotian apple lands stretch along the valley for seventy or eighty miles. The first Sunday in June is "Apple Blossom Sunday" and for a week to ten days a lovely panoply of pink and white is laid across the trees. In a good season two million barrels of apples are produced, the greater part of which is sent to Europe. Co-operation

among the fruit growers has developed; the largest association is known as the United Fruit Growers of Nova Scotia. There is a Maritime Agricultural College at Truro. Outside the valley dairying and general farming are largely carried on. At the head of the Bay of Fundy and in the Minas Basin the low-lying meadows produce splendid crops of hay. Stock-raising, eggs and poultry, are products of this region.

No fisheries in Canada are more favorably situated than those of the Maritime Provinces. There are the deep-sea fisheries of the numerous submarine plateforms of the North Atlantic, and the inshore fisheries in the many bays and inlets of the irregular coasts. Large fleets of substantial sailing vessels leave Lunenburg, La Have, Canso and Halifax early in the season and remain in the fishing grounds until the holds of the vessels are filled with salted fish. Steam trawling, so important in the North Sea fisheries, has not been developed to any extent because of the unevenness of the bottom. While cod are the principal catch, haddock, hake, pollock and halibut are also taken in great hauls. Ten times as many fishermen engage in the inshore fisheries, employing in their operations motor-boats, sail-boats and row-boats, and fishing with gill nets, seines, baited hooks, lath cages for lobsters and long tongs for oysters. Salmon, herring, mackerel, alewives (which are herring-like fish), smelts, shad, flat-fish, small immature herring used in the "sardine" industry, as well as lobsters, oysters, clams, scallops, etc., are all included in the inshore takes of fish.

### *Nova Scotia's Virgin Timber*

Lumbering was long the chief industry of the province. As early as 1760 thirty sawmills were in operation; to-day Nova Scotia has about a million and a half acres of virgin forest and about as much in young growing forest in cut-over areas. Spruce, pine, hemlock, sugar maple and birch make up the harvest of trees which the network of small lakes and rivers brings to the mills.



Courtesy Canadian Pacific Railway  
LUMBERING ON CAINS RIVER



Courtesy Canadian National Railways; (inset) Natural Resources Intelligence Service  
HERE AND THERE IN THE MARITIME PROVINCES

New Brunswick has considerable forest resources and many small water powers. Wooden ships are still built and the man at the bottom is smoothing a spar for a boat to be launched on the Bay of Fundy. The inset shows a winter scene on Bear River, N. S., where oxen are still commonly used in hauling cord-wood for fuel from the forests.





PUBLISHERS PHOTO SERVICE

**FEMININE ANGLERS** find as much pleasure as their brothers in pitting their skill against the wariness of the trout. This young woman who has been fishing in a stream in the Kedgemacoochee district of New Brunswick shows pride in her success. Supplying the wants of summer visitors is becoming an important industry in all the Maritime Provinces.





COURTESY CANADIAN NATIONAL RAILWAYS

**THE RESTIGOUCHE**, or Ristigouche, as it is often spelled, is an interesting river, which for many miles of its course divides the Provinces of Quebec and New Brunswick. Some claim that it is the best river for salmon in the world. During the spring and summer it is visited by

thousands of anglers seeking trout or salmon. Where the river widens and deepens, forming pools, the salmon lurk, and when one takes the fly the angler has need of all his strength and skill. The branches of the Restigouche are also visited by zealous fishermen.



## THE MARITIME PROVINCES

The glories of Yarmouth and Lunenburg as shipbuilding centres have departed in these days of iron and steam. But in the middle of the nineteenth century there were registered in Nova Scotia 3,025 vessels with a tonnage of 558,910 tons, and the sailing ships of Yarmouth represented the largest tonnage *per capita* of any port in the world.

Nova Scotia has good railroads, and fine main roads. People dwell on the land in comfortable farmhouses, or on the coasts where the fisheries are good. Miners and industrial workers congregate in the important iron towns of Sydney, Pictou, Stellarton, New Glasgow and Spring Hill.

### *Prince Edward Island*

On St. John's Day, 1534, Jacques Cartier sighted Prince Edward Island and landed on the north side, near St. Peter's Bay. For more than two centuries under French settlers the land was known as the "Island of St. John." When the Acadians were deported, out of the population of four thousand then in Isle St. Jean, only some two hundred were left. In succeeding years many came back and to-day their descendants number about fourteen thousand or about a sixth of the total.

The English re-christened the island "Prince Edward" after the Duke of Kent then commander of the forces in North America, and in 1764 sent out Captain Holland to survey the land. Most of his system survives to-day. He divided the island into 3 counties—Prince, Queens, and Kings—and the land into 67 townships of 20,000 acres each, which townships could be divided up into 200 farms of 100 acres each.

### *The Scots Begin to Come*

Through a government lottery, the land fell into the hands of absentee landlords, against whom the real settlers kept up a constant agitation for a hundred years. In 1875 the Land Purchase Act advanced a sum of \$800,000 to re-purchase these lands from absent proprietors, and tenants were given the opportunity of ac-

quiring their property by payment of yearly instalments over a period of 15 years.

Under Lord Selkirk's scheme of colonization a number of Highlanders from the Western Isles began arriving in 1805; others joined them and to-day they form the largest element in the population, with a corresponding influence on the life and thought of the islanders. Loyalists came from the United States after the War of Independence, and English and Irish after the Napoleonic Wars. Prince Edward Island has suffered with the other maritime provinces in the westward move of the population.

### *The Surface of the Island*

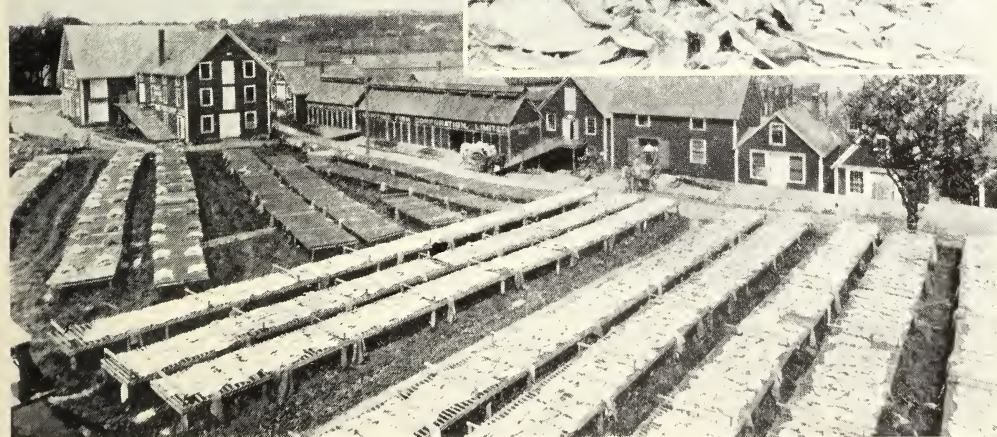
The Island has an area of 2,184 square miles, and lies in a great bay of the Gulf of St. Lawrence. Deep inlets and streams almost divide it into three parts. The land is nowhere very high above sea level, though a range of hills running north and south from Summerside to Charlottetown rises to about five hundred feet. The north shore is a favored resort, because of its sandy beaches. To the south, low cliffs of red sandstone look across Northumberland Strait to the mainland, distant from nine to thirty miles. Communication with the mainland has improved; the ancient rowboat is replaced to-day by a car-ferry which crosses twice daily.

Farming occupies the bulk of the people, as there are no minerals or coal, no height of land for water power, few manufactures. Fur-farming has become an important industry, second only to agriculture; the headquarters of the Canadian Silver Fox Breeders' Association is at Summerside, and there are many thriving concerns on the island. It is estimated that foxes brought in a revenue of between four and five million dollars in 1928. The fisheries are productive, especially those of lobster and oyster. Herring, cod, mackerel, and smelts are also caught in large quantities off the coasts. Excellent trout-fishing may be had in many of the bays and rivers.

In 1864 the first conference on confederation was held in Charlottetown to



**SORTING HERRING AT SEAL COVE**



Courtesy Natural Resources Intelligence Service; (inset) Canadian National Railways

### **WEALTH FROM THE SEA IN THE MARITIME PROVINCES**

Fishing has always been an important industry in all of these Provinces. The lower picture shows fish drying in the sun at Digby where such a scene as this is a common sight. The inset shows dried fish being unloaded and weighed on a pier at Halifax. Digby has a reputation for a particular variety of herring often known as "Digby chickens."





COURTESY CANADIAN NATIONAL RAILWAYS

**DRAWING THE NETS** at Black Harbor, New Brunswick. Small fish may be worth quite as much as large ones. Black Harbor, off the Bay of Fundy, in southern New Brunswick is the centre of the sardine-packing industry in eastern Canada. From the cool waters of the Bay of Fundy

come plumpest fish. In most years this industry is worth more to the Province than any other fishery except that of the lobster. The fish sold as sardines on this side of the Atlantic are not the same as the true European sardine, but are usually immature herring.



COURTESY CANADIAN NATIONAL RAILWAYS

PEGGY'S POINT and Peggy's Cove on the south shore of Nova Scotia, not far from Halifax, are visited every summer by dozens of artists who strive to put upon canvas the ever changing aspects of sky and water and rocks, along these granite shores. In summer this is one of the loveliest

spots on the whole coast, but when the winter storms come the exposed lighthouse is a desolate place. Back from the shore there is a varied country of lakes, forests and rivers with a few farmhouses and occasionally a small village, but there are no considerable towns.





Courtesy Canadian National Railways

### AN AERIAL VIEW OF BEAR RIVER, NOVA SCOTIA

Bear River is a small stream which empties into Annapolis Basin not far from Digby. It runs through some fertile land and also through good game and fish country. A small water power development is also possible but not utilized. Naturally none of the rivers of Nova Scotia are large but many are attractive from a scenic standpoint.

discuss a union of the maritime provinces. To it came delegates from the United Provinces of Ontario and Quebec and the idea of confederation was enlarged to dominion stature. Prince Edward Island entered the Confederation in 1871—though she lost thereby free trade with the United States, and her young men were attracted to the West by the opening up of the Canadian Pacific Railway.

Until 1784 New Brunswick formed part first of the French province of Acadie, later of the British province of Nova Scotia. During the French régime three thousand Acadians were living in New Brunswick. Nearly half of these were deported, the remnant fled to the wilderness and, when joined by returning exiles, became the progenitors of the Acadians who to-day form an important element of the New Brunswick people. In 1762

English settlements were made at Margerville on the St. John River, and two years later Scottish farmers took up land on the Miramichi. But in the spring of 1783 there arrived at the mouth of the St. John a large number of Loyalists from the United States. Thousands more followed, and because the difficulties connected with settlement were not easily met by a government so far away as Halifax, New Brunswick was declared a separate province, and Fredericton (named after the Duke of York) chosen as its capital.

After the close of the Napoleonic Wars immigration from Great Britain and Ireland reached its height in the 'forties when six to eight thousand arrived every year. At least a hundred thousand settlers landed in the province at this time. Though many passed on to the United



## THE MARITIME PROVINCES

States, others stayed and prospered. After 1855 there was a marked decline in immigration, followed by a movement of English-speaking peoples westward to the prairies.

When the Loyalists came to New Brunswick the surface of the province was densely forested; communication was by water only; there were not in the province ten miles of road fit for a wheeled carriage. The chief physical characteristic of the land is the network of rivers, lakes and bays, in all sections. Practically every spot can be reached by water; the sources of the rivers are close together and only short portages are required to get from one to another.

Forming a northern part of the Appalachian system, the surface of New Brunswick is undulating, and in the north and northwest the hills rise in Bald Mountain to two thousand feet. The coast on the Gulf of St. Lawrence and of the Baie de Chaleur is very rugged and

wild. To the south numerous rivers have cut broad valleys or "intervalles" in the soft soil which is extremely fertile. The Bay of Fundy, an arm of the sea separating New Brunswick from Nova Scotia, is 140 miles long as far up as Chignecto Bay. Its extreme high tides rise about thirty feet at St. John and over fifty feet at Chignecto Bay.

In New Brunswick the winters are severe but healthful, with great snowfalls. On the shores of the Bay of Fundy there is much fog during the summer months, but this extends a short distance only into the interior, where the air is warmer in summer than on the seacoast, and where also is a greater degree of cold in the winter.

No account of New Brunswick which omitted to speak of its fisheries and lumbering would be in any way complete. Under the Biological Board of Canada, the experimental Atlantic Biological station at St. Andrews carries on research.



Photograph by Macaskill

### BADDECK, CAPE BRETON ISLAND, FRAMED BY TREES

Alexander Graham Bell, the inventor of the telephone, built a magnificent summer home on Beinn Bhreagh (Beautiful Mountain) and is buried there. This view of Baddeck framed by trees was made from his grounds. Baddeck has become a favorite summer resort, visited every year by many from other parts of Canada and also from the United States.





COURTESY CANADIAN PACIFIC RAILWAY

**STRONG OXEN** furnish much of the traction in western Nova Scotia, and such a sight as this is common. The meadows are an important source of wealth in the Maritime Provinces, and the meadows off the Basin of Minas are particularly interesting. Though they are diked and much of

the water is kept out by gates, nevertheless, at high tide, they are crossed by an intricate system of channels which are filled with water from the Basin. Hay is, next to wheat, the most valuable crop of Canada and in the Maritime Provinces is worth much more than the wheat crop.



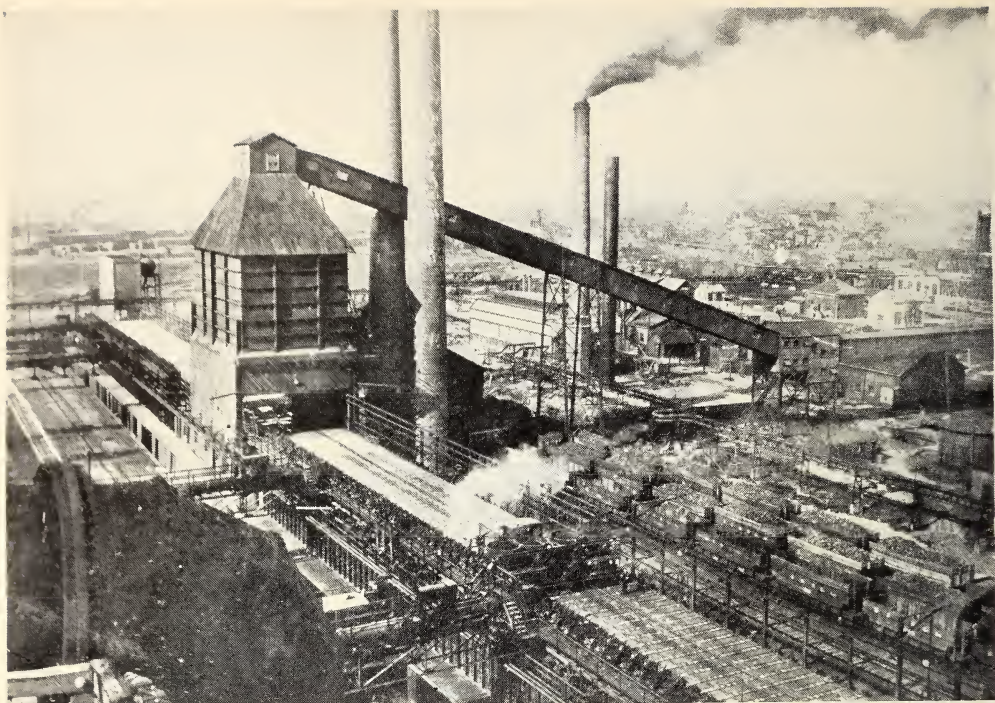


PHOTOGRAPH BY MACASKILL

**THE GASPEREAU VALLEY** is a delightful region of apple orchards and fertile farms. For miles and miles carefully tended orchards and farms extend through the valleys of the Gasperreau, the Cornwallis, the Pereau and other streams in the western half of Nova Scotia, where one may

“ride for fifty miles under apple blossoms”. The scene in spring time when the trees are clothed in pink is too lovely to describe. This is one of the best fruit regions in North America, and the well cultivated farms are hardly less attractive than the orderly ranks of the orchard trees.





Courtesy Natural Resources Intelligence Service

PLANT OF THE DOMINION IRON AND STEEL COMPANY AT SYDNEY, N. S.



Photograph by Associated Screen News Limited, Montreal

### THE PRODUCT OF THE MINES IN NOVA SCOTIA

The Maritimes contain much mineral wealth. The plant above uses Nova Scotia coal to smelt ore from Newfoundland where there is the largest single body of iron ore in the world. The lower picture shows how easily gypsum is mined at Windsor, N. S. Nova Scotia has also produced gold besides limited quantities of zinc, salt and other minerals.





Courtesy Natural Resources Intelligence Service

# THRESHING TURNIP SEED, EXPERIMENTAL STATION, KENTVILLE, N. S.



Courtesy Canadian National Railways

## THE VARIED AGRICULTURAL RESOURCES OF THE PROVINCES

There is some beautiful farming land in all of the Maritime Provinces, though, of course, there are not the broad fields seen in the West. The lower picture shows a potato field in New Brunswick, while the inset is a road in the Alberton district, Prince Edward Island, where a high standard of material comfort prevails among the rural inhabitants.





COURTESY CANADIAN NATIONAL RAILWAYS

**IN THE VALLEY** of the Margaree River, Cape Breton Island. The Margaree River on the western side of Cape Breton empties into the Gulf of St. Lawrence, and its valley is famed for its charm. Water, meadow and hills, all combine to make a succession of beautiful scenes.

Salmon visit the river and every year fishermen come from far distant places to try their luck. One distinguished lawyer has been coming for forty years. Artists also visit the valley and stay for weeks. There are many excellent sites for camps along the river and its branches.





COURTESY CANADIAN NATIONAL RAILWAYS

**ALONG THE COAST** of the smallest Province, Prince Edward Island. Though no point on Prince Edward Island is more than 390 feet above sea level, the sandstone cliffs along the shores rise rather abruptly in some places. The north shore is almost a continuous beach, and everywhere

along the coast the water is safe. Geologically the formation is the same as that of the interior lowland of New Brunswick and the northeast part of Nova Scotia. The Island is sometimes called "the million-acre farm" because so much of the area is under cultivation.



## THE MARITIME PROVINCES

In the Bay of Fundy the chief fishing grounds are near the entrance to the bay and in the vicinity of the islands of Grand Manan, Campo Bello and West. In the Gulf of St. Lawrence the season is shorter and fishing carried on only from April until the end of November when ice begins to form. From Point Escuminac to Miscou, and thence up the Baie de Chaleur to the mouth of the Restigouche, the sea-harvest is gathered. The Baie de Chaleur cod is highly prized in the markets of the Mediterranean.

Lumbering on a large scale began in Nova Scotia. As early as 1760 there were thirty sawmills operating, but the leadership in production passed to New Brunswick about 1800, and in 1851 there were 584 sawmills in the province. (Quebec has the leadership to-day.) Pine forests supplying masts for ships were particularly abundant, and shipbuilding became a great industry in the Bay of

Fundy ports until the construction of iron ships reduced the demand.

Fredericton, the capital of the province, is beautifully situated on the St. John River, with a Gothic Cathedral, fine legislative buildings and a university. It is possible for the hunter and angler to arrange excursions from this point. St. John is noted for its fine harbor, capable of receiving the largest ships both summer and winter. Just before the river St. John enters the harbor are the celebrated Reversing Falls. At Courtenay Bay is a dry dock of 1,150 feet, one of the world's largest. St. Andrews, a summer resort, is situated on a peninsula between Passamaquoddy Bay and the St. Croix River. Moncton, on the Petitcodiac River, is the centre of railway employment and repair works for the Canadian National Railways east of Montreal. Its celebrated "tidal bore" carries the waters to a height of forty feet.

### MARITIME PROVINCES: FACTS AND FIGURES

The three easternmost provinces of Canada, Nova Scotia, New Brunswick and Prince Edward Island, are known as the Maritime Provinces. Total area, 51,597 square miles. Population (1921), 980,328.

**NOVA SCOTIA** is composed of the peninsula proper and Cape Breton Island. Total area, 21,428 square miles; land area, 21,068 square miles. Population (1921), 523,837. Government consists of a Lieutenant-Governor, appointed by the Federal Government, and a ministry responsible to a House of Assembly of 38 members. Representation in Dominion Senate, 10; in House of Commons, 14. Province is largely agricultural; fruit-growing is particularly successful; dairying carried on. Principal mineral products are coal, steel, iron, coke, gypsum, limestone and gold. There are also valuable forest resources and extensive fisheries. The railway mileage is 1,451; telephone wire mileage in 1925, 71,368; telegraph wire mileage, 14,743. Population about 7/10 Protestant. Education is free, compulsory and undenominational. The province has 9 universities and colleges and 3,113 schools with 112,556 pupils. Population of the principal cities in 1921: Halifax (capital), 58,372; Sydney, 22,545; Glace Bay, 17,007; Amherst, 9,998. Other towns are New Glasgow, Sydney Mines, Dartmouth, Truro and Yarmouth.

**NEW BRUNSWICK** has a total area of 27,985 square miles; land area, 27,911 square miles. Population (1921), 387,876. Government is vested in a Lieutenant-Governor appointed by the Federal Government and a min-

istry responsible to a Legislative Assembly of 48 members. Representation in Dominion Senate, 10; in House of Commons, 11. Agriculture, manufactures, mining, fishing and forests important. The railway mileage (1926), 1,935; telephone wire mileage, 46,349; telegraph wire mileage, 15,685. Protestant population about 56 per cent. Education is free and undenominational. In 1927, there were 80,690 pupils in 2,311 public schools; there are 3 universities. Population of principal cities (1921): St. John, 47,166; Moncton, 17,488; Fredericton (capital), 8,114. Other towns are Campbellton, Chatham, Bathurst, Newcastle and Edmundston.

**PRINCE EDWARD ISLAND**, the smallest province in the Dominion, lies at the mouth of the Gulf of St. Lawrence; separated from the mainland of New Brunswick and Nova Scotia by Northumberland Strait. Area, 2,184 square miles; total population (1921), 88,615. Administered by a Lieutenant-Governor appointed by the Federal Government and a ministry responsible to a Legislative Assembly of 30 members. Representation in Dominion Senate, 4; in House of Commons, 4. Fishing and agriculture are important occupations; silver fox-farming extensively carried on. Railway mileage (1924), 279; 5,598 miles of telephone wire (1926); telegraph wire mileage, 882. Protestant population about 56 per cent. There are two colleges; in 1926 there were 471 public schools with 17,324 pupils. Population of chief towns: Charlottetown (capital), 12,347; Summerside, 3,228. Other towns are Souris, Georgetown, Rustico, North Rustico and Murray Harbor.

# QUEBEC, ONCE NEW FRANCE

## *The Largest Province of the Dominion*

Quebec, long known as New France, has a long and interesting history. Founded by the French more than three centuries ago, it has remained French in spirit and largely in language though transferred to Great Britain more than a century and a half ago. By successive addition of territory it has become by far the largest province in the Dominion though much of the territory recently acquired is almost unsettled. Quebec has two of the oldest and most beautiful cities in Canada, Quebec and Montreal, which are described elsewhere. Though far from the ocean both have the advantages of ports through their situation on the broad St. Lawrence.

THE Province of Quebec, known as New France for upward of a hundred and fifty years, is more than three times the size of Old France. Including the northern district of Ungava it is the largest province in the Dominion. New France became Canada, then Lower Canada, finally the Province of Quebec, but yet through changing nomenclature its people have preserved their racial and religious character. In 1921, of a population of 2,361,199 souls, 1,889,277 were of French origin and the remaining 471,922 were divided chiefly among the English, Scotch, Irish and Hebrew.

That Quebec is chiefly French and Catholic to-day can be explained by the nature of her founding. Jacques Cartier in 1534 explored the Gulf of St. Lawrence and reached the Indian cities of Stadacona (Quebec) and Hochelaga (Montreal), and the subsequent visits of fishermen and fur-traders gave to the French king the idea of the value of a colony on the banks of the St. Lawrence. In 1603 Samuel de Champlain, son of a sea captain of Brouage, sailed up the St. Lawrence, and, five years later, founded the town of Quebec, which was to become the capital of New France.

Inspired by Champlain's tales of the Indians, Franciscans of the Récollet Order returned with him to Quebec and a few years later (1625) welcomed the Jesuits to help them in the great task of converting the savages. Now opens a chapter of heroic endeavor by the priests of the Black Robe, to whose mission journals called *Rélations* we owe most of

our knowledge of early conditions. With the motto of the order *Ad maiorem Dei gloriam* animating every thought and action these men went forth into forest and swamp, by lake and rapid, in cold and heat, to teach the Indians, form settlements, found schools, encourage the living and comfort the dying. By torture, starvation, loneliness were they tried; through inspiration and devotion they conquered.

To the explorers were added *coureurs de bois* and *voyageurs*, merchants and soldiers. The home government gave over the direction of affairs to a company known as the Company of One Hundred Associates who had control of the fur trade and power to govern and to grant land. But the Associates neglected settlement and in 1663 the French King, Louis XIV, canceled their charter and made New France a crown colony under a triumvirate of Governor, Intendant and Bishop.

Talon was one of the early intendants and the real organizer of the seigniorial system, or local adaptation of the feudal system of holding lands in return for service. The seignior became the social and political framework of the colony, and his function was to survey his lands, separate them into farms and place settlers upon them. As the St. Lawrence was the artery of communication the seigniories were granted along its shores, with the farmers as close to the water as possible. To-day the first impression of Quebec from the St. Lawrence is of many villages each grouped about a parish



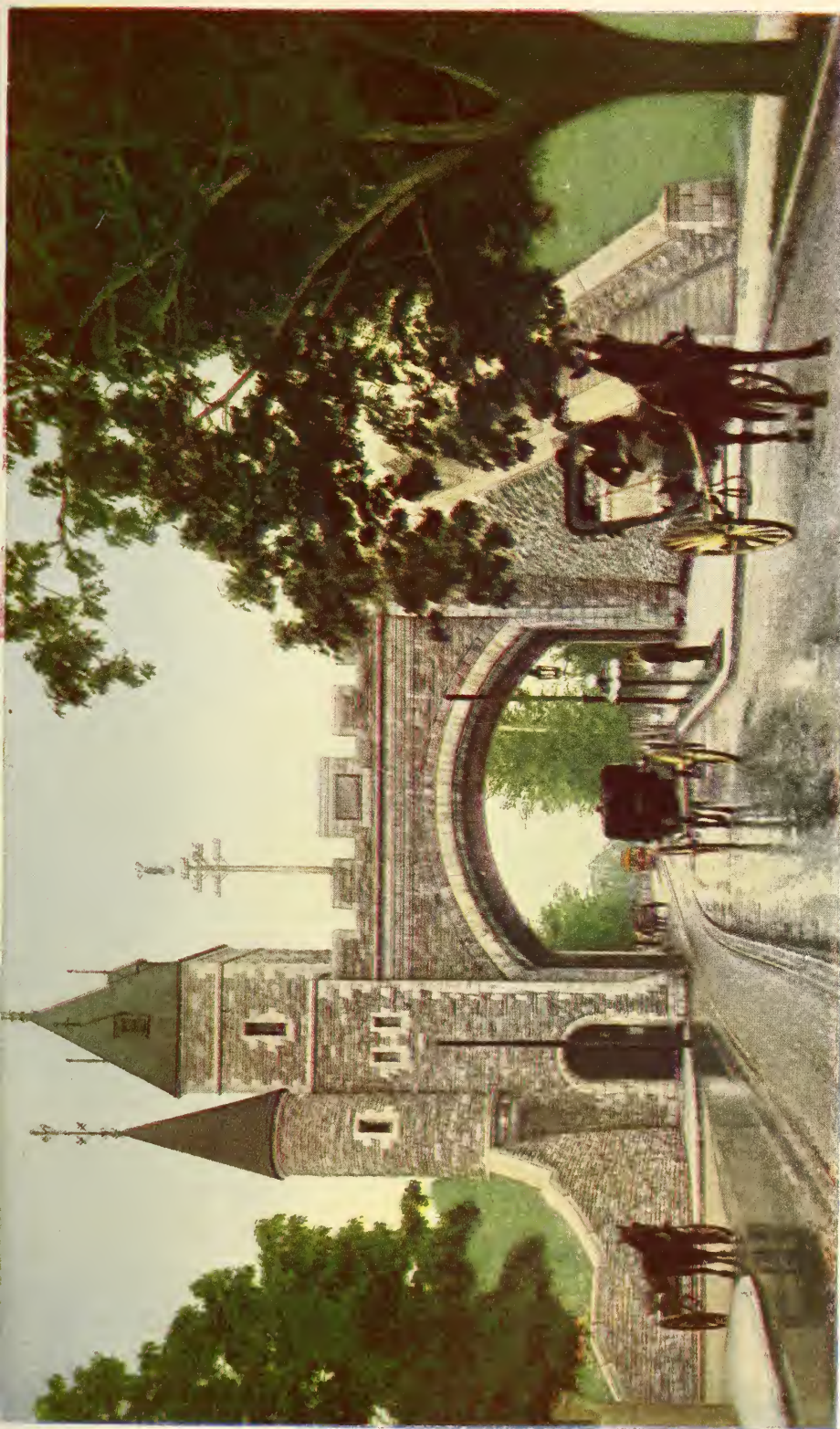


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**CHATEAU DE RAMEZAY** has had a long and interesting history. Built about 1705 by Claude de Ramezay, governor of Montreal, it was his residence for about twenty years, was then the headquarters of the fur trade and the residence of British governors. Still later it served in turn

as the headquarters of the Special Council, as governmental offices, a court house, a law school, a normal school and a medical school. It is now a museum and contains many exhibits having to do with Indian and French Canada, and also a special Montreal library.





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**ST. LOUIS GATE** occupies the site of an older gate in the walls which made Quebec almost impregnable to direct attack. Even the present walls are a reconstruction, as very little of the original work remains. Beyond the walls St. Louis Street becomes Grand Allée on which the dignified

Parliament Buildings front. One may ascend the steps to the right of the gate and make the circuit of the walls, about three miles. The unusual sort of cab in the foreground is called a calèche, and was formerly the prevailing type of public conveyance, at least in the summer time.



church. Village is divided from village by long strips of tilled ground stretching from a narrow front upon the river far back to rising ground. These *terres* were originally about two hundred yards wide and over a mile long, back from the river; by division the strips have become narrower as each man desired river frontage, marsh land, arable land and bush.

Behind these concessions (stretching back from two to ten miles) is a second range, often Irish or Scotch, and beyond these again the lands of the pioneers whom continual subdivision has squeezed out of the patrimonial farms and forced back into the wilderness. The old bake-ovens, gristmills, manor houses stand to-day in many parts of the province—silent witnesses to the old seigniorial régime—while the churches, convents, monasteries, schools and hospitals testify in every city and village to the rule of the Church, whose first Vicar Apostolic in New France was Montmorency de Laval.

### *France Loses Canada*

Of the governors appointed to rule in Quebec the most powerful was Frontenac whose ambition "was to be in New France the reflection of the great monarch who ruled in Old France." He revived and strengthened Champlain's incipient colony, sometimes working with, sometimes against the Church. After his death dark days came and rumors of invasion. Official corruption had undermined every branch of the public service, and Bigot the Intendant was supreme in such dishonesty. War was declared between England and France in 1756 and the desultory struggles which had taken place between the rival colonies gave place to the sterner contest of two great powers in a war of conquest.

"The most momentous and far-reaching question," says Parkman, "ever brought to issue on this continent was—shall France remain here or shall she not?" The answer to that question was given on the thirteenth of September, 1759, when Wolfe and Montcalm met upon the Heights of Abraham. Victory fell to the British, but the general who

had planned the attack died in its attainment and the French commander Montcalm lingered for only a few hours.

### *French Influence Persists*

The Peace of Paris which ended the war marks an epoch in history. It gave to England the French possessions in Canada, and to the inhabitants of the neighboring states that security which formed the prelude to independence. Although at the time of the conquest there were only 65,000 French-speaking inhabitants of New France, the French Canadian population is still three times as large as the combined immigrant population, owing to the liking of the French Canadians for large families. What other nations have achieved by the sword or by commercial enterprise the French-Canadians have reached by sheer fecundity.

After the conquest, the soldiers of the Highland regiments who fought under Wolfe settled as farmers along the river and a steady flow of British merchants and traders came in. This immigration from Great Britain was supplemented at the end of the eighteenth century by a number of American colonists who had chosen to be loyal to the Crown in the War of Independence. Many of these United Empire Loyalists settled in the rolling lands south of the St. Lawrence between Quebec and Montreal, land which had been left untouched by river-bound seignior and habitant, and which now came to be known as the Eastern Townships. Potato famines in Ireland added many Irish to the population of Quebec in the middle of the nineteenth century, and large numbers of their descendants are to be found in the cities to-day. Other Europeans have entered in the last decades, either directly or by way of the United States. There are over 50,000 Jews in the province.

### *The Important Quebec Act*

The French-Canadians received a charter of liberty from the British Government in the Quebec Act passed in 1774 by which they were granted liberty to profess the religion of the Church of Rome.

and to steer by French Civil law. The Act of 1791 divided Canada into two provinces and gave to Quebec a Legislative Council and a House of Assembly elected by the people. In 1842 this form of government broke down and the provinces were again joined and the seat of government became movable. Kingston, Montreal, Toronto and Quebec each in turn became the capital.

### *Responsible Government Granted*

For half a century the attempt had been made to govern the Canadas as separate provinces, and with the half-measure of freedom involved in representative government. For the next twenty-five years the experiment of responsible government together with the union of the two provinces was given its trial. It did not take the politicians long to use the power that responsible government put into their hands and the names of the prime ministers, rather than those of the governors, were now in men's mouths.

In 1864 the delegates of the North American provinces (Nova Scotia, New Brunswick, Prince Edward Island, Newfoundland and Upper and Lower Canada) met in Quebec to discuss federal union. Newfoundland and Prince Edward Island refused to join, but at the inauguration of Confederation in 1867, Quebec was named the seat of the Provincial Government, as the Canadas were finally divided into Ontario and Quebec.

The province of Quebec (land area, 583,895 square miles) extends from the western end of the Strait of Belle Isle to Lake Timiskaming. Its general direction is northeast and southwest following the course of its chief physical feature, the St. Lawrence. Three chief divisions may be clearly perceived: the Laurentian Highlands, the Valley of the St. Lawrence, and the Notre Dame Mountains and rolling country lying to the south-east.

The Laurentians form a plateau with an elevation of 1,000 to 2,000 feet above sea level, falling away toward Hudson Bay. In Labrador the country is higher and more rugged, in some parts over 6,000

feet above sea level, densely wooded with many lakes whose numerous feeders cascade away down to the St. Lawrence. This Laurentian Plateau contains the chief timber supplies of the Dominion, valuable mineral deposits, and is the home of many fur-bearing animals.

### *The St. Lawrence Valley*

The Valley of the St. Lawrence stretches in a wedge-shaped area along the river from a short distance below Quebec to the western boundary. Level and fertile, it contains not only the majority of the rural population but the chief towns and cities of the province as well. The early French settlers first made their home here. Eight isolated hills, the Monteregians of which Mount Royal is one, break its expanse and constitute the most striking feature of the landscape.

The northern end of the great Appalachian Mountain system is known in Quebec to the south of the St. Lawrence as the Notre Dame Mountains. Entering the province between Lakes Memphrémagog and Champlain the range reaches the St. Lawrence just below Metis, and still extending to the northeast forms the highland of the Gaspé Peninsula, whose highest parts, the Shickshock Mountains, are over three thousand feet above the sea.

### *Life on the Frontier*

We have spoken earlier of the pioneers whom family pressure urged out into the wilderness to found new farms. Louis Hémon's *Maria Chapdelaine* paints a vivid picture of this conquest of the land on the frontiers of the forest. If it had not been for the direction of the clergy many of these pioneers would have been lost to the province; numbers of them indeed had already crossed the borders, and hundreds had gone to the Far West, when the priest-colonists began to organize parishes in the valleys of the Laurentians, shepherding their flocks and supplying a background of inspiration and national feeling in the wilderness. Thus in the counties of Terrebonne, Argenteuil, Labelle and Ottawa, the so-called Lau-





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**SOUS-LE-CAP STREET**, Quebec, is one of the quaintest thoroughfares imaginable. It is a narrow, winding, old alley near the water in the "lower town" of Quebec, where French is spoken almost exclusively. There are several of these bridges connecting houses on opposite sides of the street, and the atmosphere is distinctly that of the Old World.





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TADOUSSAC, though it remains only a tiny village, is the oldest continuously occupied settlement in Canada. It is situated at the point where the Saguenay flows into the St. Lawrence. The Indians told Jacques Cartier strange and terrifying stories of the gloomy Saguenay. Never-

theless, in 1599, a trading-post was established, and the settlement continued in the face of famine, war, and Indian attack. The little town was also long a centre of Recollet and Jesuit missionary effort in the difficult task of converting the savage Indians.



## QUEBEC, ONCE NEW FRANCE



rentian district has been opened up, and is one of the most beautiful in Quebec in the heart of the hills amid countless lakes and streams. To this part the curé Labelle led his parishioners many years ago.

Another valley, the Gatineau, opens to the east of Hull. On this river and from the surrounding woods a rich supply of lumber has been removed, and now rich lands await the farmer. Maniwaki, the centre of Upper Gatineau country, is an attractive town and a railway centre.

Due north of Montreal is found the Mattawin area consisting of parts of three of five curiously shaped counties which are only twelve miles wide and three hundred miles long, running at right angles to the St. Lawrence. The Timiskaming area is called New Quebec; in its wilderness are now a number of



Courtesy Natural Resources Intelligence Service

### GATHERING AND BOILING THE SAP OF THE SUGAR MAPLE

Making maple syrup and sugar is a considerable industry in Quebec. The trees are tapped and the sap collected in buckets before the snow has entirely disappeared. While much sugar is still made in this primitive fashion, much more is evaporated in pans constructed for the purpose and placed indoors where the heat can be controlled.



## QUEBEC, ONCE NEW FRANCE

villages, chief of which is Ville Marie just east of Cobalt.

Returning to the St. Lawrence and following its course downstream we find ourselves at Three Rivers—so called from the appearance given to the St. Maurice by the islands at its mouth. This is one of the oldest settlements in the history of the colony. The ascent of the beautiful St. Maurice, the fourth great river of the province, brings us to Shawinigan, some twenty-four miles up and into the country where Quebec possesses still a large and valuable reserve. Shawinigan has grown up on the beautiful falls of this name, which since 1897 have been the property of the Shawinigan Company, a great power concern. Farther up are the Falls of Grand' Mere, belonging to the Laurentide Pulp and Paper Company.



Courtesy Canadian National Railways

### PLAYTIME IN THE COUNTRYSIDE OF QUEBEC

The Ferris wheel in rural Quebec, shown above, affords more exercise to its riders, who furnish the motive power, than their city cousins have on machine-driven wheels at pleasure resorts. The trio facing the moving picture camera are perhaps experiencing the ordeal for the first time, but the photographer looks almost professional.





COURTESY CANADIAN NATIONAL RAILWAYS

**QUEBEC ORCHARDS** have won a reputation for the quality of their fruit. The famous MacIntosh Red apple has been brought to its highest development by the growers of the Rougemont section of the Province. More of the orchards are in the Eastern Townships than in any other section but perhaps the finest one of all is in the Ottawa Valley.





**HABITANT BOYS WITH THEIR DOG-CARTS** run up and down the hills along the St. Lawrence shore, often with baby brothers or sisters for passengers. Little François or Jacques or Marie calls out "B'jour" politely to the passer-by, and sometimes a baby voice varies the greeting

by making it "Hil'loa". To enquiries about the dog's name the answer will invariably be "Chien". These boys, who are looking for tourist fares and who seem to be getting some fun out of life, have dressed up "Chien" to give him a sporting air. Boys are much alike everywhere.

PHOTOGRAPH BY EWING GALLOWAY





Photograph by Fairchild Aerial Surveys

#### A SMALLER POWER DEVELOPMENT IN THE EASTERN TOWNSHIPS

The southern tributaries of the St. Lawrence are neither so large nor so swift as those to the north of the great river, but they have been extensively developed. This is a plant of the Southern Canada Power Company at Hemming's Falls on the St. François River, near Drummondville, Quebec. There are other plants on this stream.

As early as the days of rival fur-traders, a knowledge of the vast hinterland of Quebec was obtained by the intrepid *voyageurs* on their way to their goal, Hudson's Bay. The English went usually by sea, but the French chose the overland route by Lake Timiskaming and Lake St. John. Their discoveries revealed sources of wealth which included not only rich furs, but vast forests of spruce for saw logs and pulp wood, and sites of potential cheap water power. These supplies of power have to-day attracted many industries to the province. Quebec leads the Dominion in the manufacture of cotton textiles, boots and shoes, explosives, men's clothing, paints and varnishes, fur goods and silk goods.

From the east end of Lake St. John the river Saguenay flows in solemn grandeur to the St. Lawrence through a gorge nicked by streams some of which tumble down from the steep-walled upland.

Cape Trinity rises in three successive heights to two thousand feet above a quiet bay, and Cape Eternity stands in sheer majesty, the culmination of beauty. At the village of Tadoussac the Saguenay enters the St. Lawrence.

The term North Shore is given to an area of land stretching from the Port Neuf River, one hundred and fifty miles below Quebec, to Natashquan below Anticosti. East of that to Blanc Sablon is the Quebec Labrador, and the wealth of both the North Shore and Quebec Labrador lies in their rivers, forests, fisheries and iron mines.

To Quebec belong the islands of Anticosti, the Bird Islands and the Magdalen Islands in the Gulf of St. Lawrence. Anticosti was settled by Louis Joliet in 1580. The Magdalen Islands are famous for their fisheries, particularly those of lobster.

Southward from the city of Quebec lie





Courtesy Royal Canadian Air Force

#### AIR VIEW OF THE PAGAN FALLS POWER PLANT ON THE GATINEAU RIVER

Quebec has more water power both developed and undeveloped than any other Province. This new plant at Pagan Falls on the Gatineau River north of Hull is rated at 204,000 horse power. The same company has two other plants lower down on the river and has planned to increase the output of them all should it become necessary.

the eleven counties known as the Eastern Townships: Brome, Compton, Drummond, Athabaska, Megantic, Missisquoi, Richmond, Wolfe, Shefford, Sherbrooke and Stanstead. These settlements, sometimes called the garden of Quebec, were made by United Empire Loyalists and British veterans of the Napoleonic Wars. To-day to the forests have succeeded towns and villages, rich fields and farms. In a hilly region, forming a northeast spur of the Appalachians, here known as the Notre Dame Mountains, lakes and rivers abound. Lake Memphremagog, thirty miles long, is notable for its lovely rugged shores. Lake Megantic is a great rendezvous of sportsmen and sends out the Chaudière River with its beautiful falls. The Eastern Townships form one of the oldest dairying districts in Canada; butter-making is a specialty and proximity to Montreal facilitates its disposal. Railways have gone in among the valleys and

there is no farming section to-day without good transportation facilities. Sherbrooke, christened by Sir John Sherbrooke in 1816, is to-day a flourishing city with important industries fed by the St. Francis and Magog rivers. Lennoxville a short distance away, is famous for its school and college. At Thetford asbestos mines employ a large number of miners and artisans who are generally of French origin. These asbestos mines are the richest in the world and form the total Canadian output.

South Quebec below Metis consists of the region of Temisconata, a mountainous terrain dotted with lakes and small rivers, a sporting country *par excellence* yet a country of great fertility; then the far-famed Metapedia Valley stretching between the provinces of New Brunswick and Quebec. No scenery in Canada surpasses that to be found in this valley, where precipitous forest-clad hills over-





PHOTOGRAPH BY EWING GALLOWAY

**MONTMORENCY FALLS**, named for the famous churchman, François de Montmorency-Laval, the first Bishop of Quebec, have been famous for three centuries. They are situated in the river of the same name just before it flows into the St. Lawrence a few miles below Quebec City. The

drop is about 265 feet and the greatest width about 150 feet. Much water has been diverted to generate electricity for Quebec City and the falls are no longer so imposing as formerly. Wolfe made an unsuccessful attack on Quebec from the village of Montmorency.

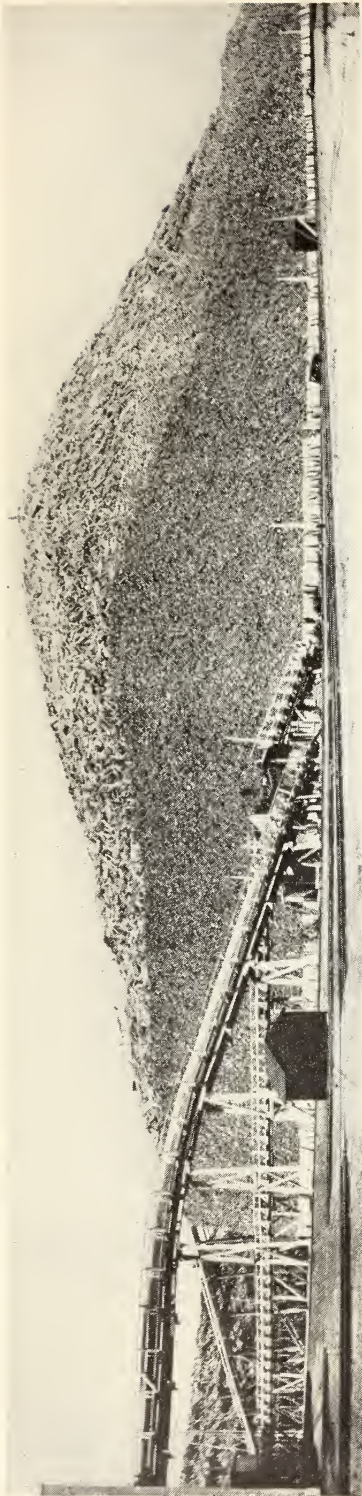




PUBLISHERS PHOTO SERVICE

**CAPE TRINITY** on the Saguenay River, about thirty miles from its junction with the St. Lawrence, is a cliff which rises in three steps from the river to a height of over 1,500 feet. Opposite is Cape Eternity, even higher. The river itself is really a fjord, deepened by ice long ago, and is several hundred feet deeper than the St. Lawrence.





Courtesy Natural Resources Intelligence Service

THE FOREST IS BROUGHT TO THE PULP MILL TO BE MADE INTO PAPER

Quebec is the leading Province in making both pulp and paper. Every year the wood on many acres is transported to the mills. While Canada

makes paper of various sorts the chief is newsprint, that is, paper for newspapers. This is the block pile at Kenogami, near Lake St. John.

hang the rushing river. Here is the meeting place of the salmon-anglers and fine fishing clubs monopolize the waters.

Northward, the Gaspé Peninsula, a region of about 3,000 square miles, edges the river and forms the last stand of the Appalachians. Not much more than the coastline is populated though the soil is fertile and farming increasing. The fisheries of the lower St. Lawrence are here very rich and most of the people engage in them. The rock of St. Michel de Percé, rising three hundred feet perpendicularly from the sea, is the abode of innumerable sea birds. Gaspé, one of the oldest towns on the continent, has a fine harbor, a bay twenty miles long.

### QUEBEC: FACTS AND FIGURES

**THE COUNTRY.** Province includes also island of Anticosti, Bird Islands and Magdalen Islands in the Gulf of St. Lawrence. The total area (as amended by the Labrador Boundary Award) is 594,434 square miles (including Ungava, 351,780; land area, 583,895 square miles. Total population (1921), 2,361,199.

**GOVERNMENT.** Administered by a Lieutenant-Governor, appointed by the Federal Government, a responsible ministry, a Legislative Council of 24 members (appointed for life) and an elected Legislative Assembly of 85 members. Representation in Dominion Senate, 24; in House of Commons, 65.

**COMMERCE AND INDUSTRIES.** Agriculture is the basic industry; wheat, oats, barley, rye, peas, buckwheat, mixed grains, flaxseed, corn, potatoes, turnips, hay, clover and alfalfa are grown. Fox-farming and fishing are important occupations and the Province leads the Dominion in pulpwood production. The chief minerals are asbestos (over 85% of the world's supply), copper, feldspar, gold, graphite, magnesite, mica, molybdenite, phosphate, silver, zinc and lead. The leading industries are pulp and paper, cotton and its products, cigars and cigarettes, dairy products, flour and its products, boots and shoes, saw-mills, electric light and power, meat-packing and breweries.

**COMMUNICATIONS.** Railway mileage in 1926, 4,844. Length of telephone wire, 603,328 miles; length of telegraph wire, 39,067 miles.

**RELIGION AND EDUCATION.** Population about six-sevenths Catholic. The schools are sectarian; in 1926 there were 8,116 schools of all kinds with 597,364 pupils. There are four universities.

**CITIES.** Population in 1926: Montreal, 1,300,000; Quebec (capital), 165,000; Hull, 35,233; Verdun, 42,247; Three Rivers, 35,000; Sherbrooke, 25,021.

# ONTARIO, FORMERLY UPPER CANADA

## *The Central Province of the Dominion*

Ontario was settled much later than Quebec and the other provinces to the east. Until after the American Revolution there were only a few scattered settlements in what came to be called Upper Canada. Many Loyalists found refuge in the wilderness, and were soon followed by immigrants from the British Isles. To-day the province is the most populous of the Dominion and leads in industrial development. However, in New Ontario, the territory added to the province in 1912, there is much wilderness which has been seen by few white men. It is rich in minerals and forest wealth and is now in the beginning of a process of rapid development of its resources.

SINCE 1912 the northern boundary of Ontario has been Hudson Bay. Another water-line forms the boundary to the south—from the Lake of the Woods and Rainy River through the Great Lakes, Superior, Huron, Erie and Ontario. These latter bodies of water exert a great influence on the climate of Ontario, the “central province” as it is sometimes called, modifying both winter and summer temperatures.

The area of Ontario, 407,262 square miles (including water area), is made up of two different sections, the northern, newly opened area containing about 330,000 square miles and the southern older-settled region, about 77,000 square miles. It is in this southern region, around the lakes and on the St. Lawrence, that nine-tenths of the people live. All the larger cities and most of the manufacturing and farming districts belong to Old Ontario, but New Ontario is in the process of settlement, its forests are being cleared, its fertile belts are yielding to plow and furrow, its rocks are revealing mineral riches.

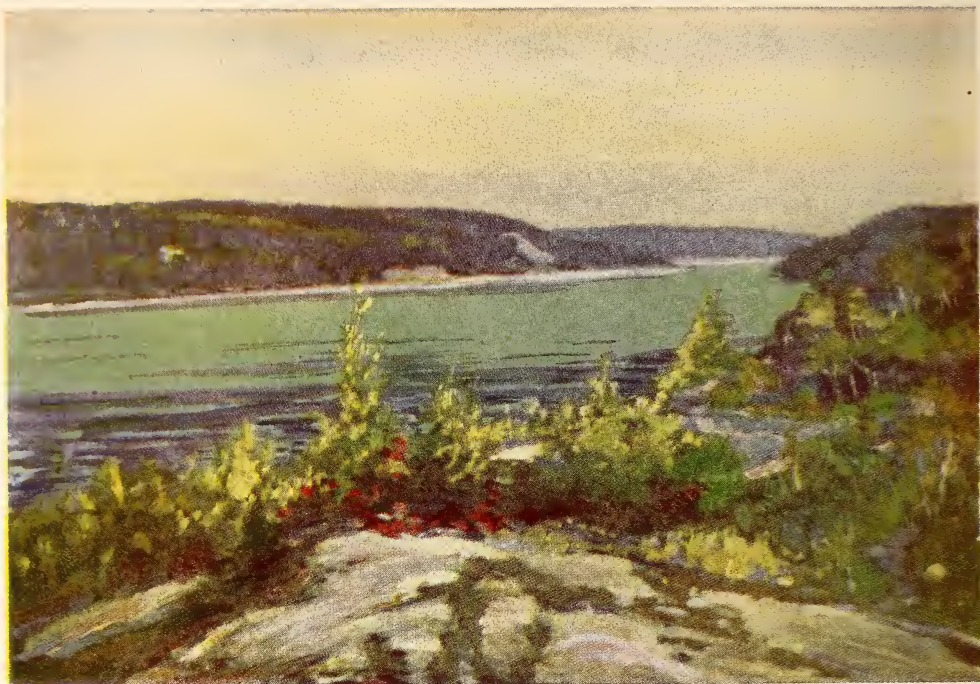
Across the surface of the province runs a ridge of Archæan rocks forming a watershed which turns some rivers north to Hudson Bay and others south to the St. Lawrence system. In general the surface is undulating, veined by rivers and small lakes, whose infinite number, especially on the northern slope, has gained the epithet “land of little lakes.” Lake Nipigon (70 miles by 50 miles) is a beautiful body of water some 800 feet above sea level which may be

considered as forming the headwaters of the St. Lawrence. The north shore of Lake Superior is bold and stern and sparsely settled by fisher people. From its southeast end St. Mary's River leads into Lake Huron by the falls known as Sault Ste. Marie where canals with large locks permit vessels of 10,000 tons to pass from lake to lake. The northeastern shore of Lake Huron is broken by large inlets and fringed into innumerable islands. Most of these are small but Manitoulin, the largest, is 80 miles long and 30 broad. Into Georgian Bay flows the French River from Lake Nipissing, and the Severn from Lake Simcoe.

Both Lake Superior and Lake Huron are very deep but St. Clair, the next in the series, is shallow and marshy, and Lake Erie is not very deep. From Lake Erie the water is carried over the Niagara escarpment and down the precipitous gorge into Lake Ontario, which is only 247 feet above sea level. Shipping from Lake Erie enters the Welland Canal at Port Colborne and emerges into Lake Ontario at Dalhousie.

Below Kingston, at the lower end of the lake the St. Lawrence flows through the intricacies of the Thousand Isles, then over several rapids to Montreal, head of ocean navigation. Ship canals afford passage for boats of considerable draught around the rapids. Next in size of the south-flowing rivers is the Ottawa River, navigable in parts, and the Trent. To Hudson Bay flow the Albany, Moose, Missinaibi and Abitibi—but they are not commercially navigable.





O'BRIEN MINE AND WEST VIEW OF CROSS LAKE, COBALT



COURTESY NATURAL RESOURCES INTELLIGENCE SERVICE

**THE COBALT RIVER**, in northern Ontario, sprang into prominence almost in a day in 1903 when rich deposits of silver and other metals were discovered. Now there are many mines. The upper picture shows the white buildings of the O'Brien Mine just visible on the farther shore of Cross Lake. Below is another view of peach orchards in bloom near Grimsby.





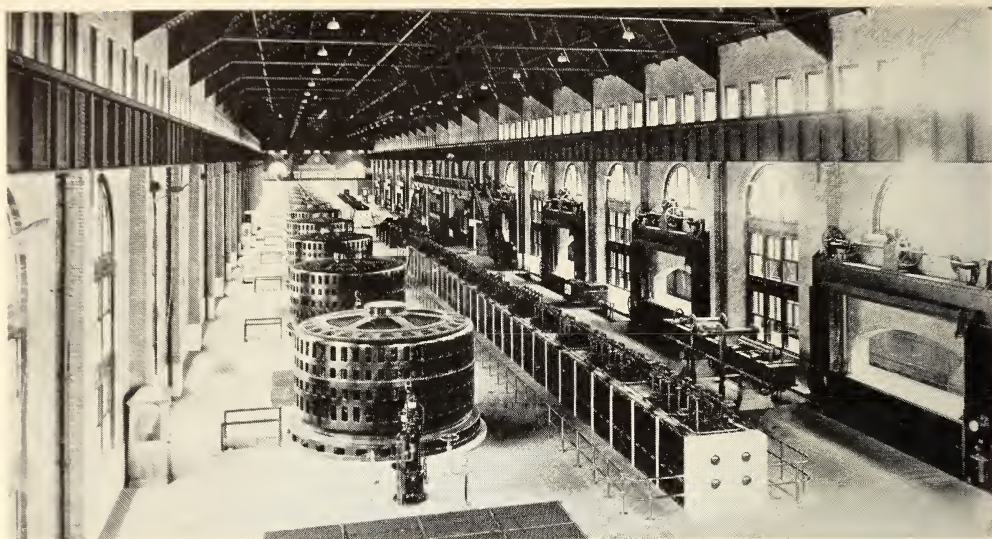
A NARROW CHANNEL IN THE LAKE OF BAYS DISTRICT



PHOTOGRAPHS FROM EWING GALLOWAY

**VACATION DAYS** in Canada are full of delight. The Lake of Bays is separated by only a mile from a group of lakes almost equally beautiful, including Peninsular, Fairy, Marys, and Lake Vernon. Those residents of Toronto who cannot go so far from home in summer find delightful bathing in the clear waters of Lake Ontario at Sunnyside Beach.





Courtesy Natural Resources Intelligence Service

### HOW MIGHTY NIAGARA FALLS ARE HARNESSSED

Above the Falls on both sides of the river some of the water is diverted and its force is transformed into electric power, which furnishes light and power for large areas in both countries. The Canadian Niagara Power Company's plant, of which a glimpse is shown, is not so large as some others but nevertheless is rated at 121,000 horse power.

To the east of Georgian Bay lie the Highlands of Ontario, before the white man the happy-hunting-grounds of the Hurons. Here no less than eight hundred waterways, lakes, rivers, streams are to be found. Beautiful Muskoka with its three lakes, Muskoka, Rosseau and Joseph, is a great playground to-day for the city-dwellers of western Ontario. "Islands abound, from a tiny one-tree speck of earth or a bare cone of rock, to a thousand-acre isle stranded mid-lake in beautiful Rosseau. Each turn of steamer or canoe reveals a new vista." Algonquin National Park, to the east of Muskoka, occupies over a million acres of forest, game and fish preserve. Moose, deer and beaver are rapidly increasing under the protection of the government on the wooded shores of lake and stream.

Temagami ("lake of deep waters"), another reserve, offers a panorama of yet hidden beauty. The main lake contains over 1,400 islands and covers an area of 90 square miles. Caribou and moose abound in its forests; its waters teem with bass and trout and pickerel. During the construction of the Timiskaming and Northern Ontario Railway (built to tap timber areas and serve small farming

communities) the discovery of the great silver mine at Cobalt was made. To the west is Sudbury, famous for its rich nickel and copper deposits.

New Ontario or Northern Ontario was formerly a part of the territory of Keewatin but in 1912 the Federal Parliament extended the boundaries of Manitoba and Ontario north to Hudson Bay and gave eight great districts to Ontario. Four times as large as Old Ontario, it is a region of forests, rocks, rivers, lakes. While the mineral areas are beginning to yield richly, much is still unexplored. Nipissing, named for its great lake, is a sportsman's paradise, and contains Algonquin Park and part of Temagami. Timiskaming, stretching to Hudson Bay, was the hunting-ground of the earlier French and English fur-trappers. Prospectors of a later day discovered the rich deposits at Cobalt, Elk Lake City and Gowganda, and railway scouts prospecting for good lands for settlement came upon the immense stretch of fertile country known as the great Clay Belt, stretching through Algoma and Timiskaming. Algoma, a vast territory extending 360 miles north from the Soo to the Albany River is a true land of lakes and rivers.



Courtesy Royal Canadian Air Force

### A PULP MILL IN THE FAR WEST OF ONTARIO

Though the production of pulp and paper in Ontario is below that in Quebec, the quantity produced is still enormous. This is a plant at Kenora at the outlet of the Lake of the Woods in westernmost Ontario near the Manitoba line. You can see great masses of wood—later to be transformed into pulp and paper—floating in the water in the foreground.

In its 200 miles of coast-land on Lakes Huron and Superior the largest town is the historic little Sault Ste. Marie named by French *voyageurs* of the seventeenth century from the falls in the St. Mary's River. Thunder Bay has a grim frontage on Lake Superior and a forested region lake-studded to the north. Fort William and Port Arthur, twin cities with immense docks and elevators stand to-day where formerly stood the rude lodges of the North-West Company of fur-traders.

Rainy River, so called from the perpendicular fall between lake and river which gave forth spray like rain, was discovered by the French and ministered to by the Jesuits. Kenora, an early Hudson's Bay Company's fort under the name of Rat Portage, is the boundary district between Ontario and Manitoba and has been the site of boundary disputes. To-day its many lakes form a playground for the citizens of Winnipeg. Patricia, eighth and last district of New Ontario, is the largest of all, adding fifty-six per cent to the area of Ontario. It has a shoreline of six hundred miles on the James and Hudson bays, but as yet has not been fully explored.

But the history of New Ontario is still

in the making, while that of Old Ontario has inscribed many a crowded page in its brief 150 years of life. The wooded wilderness lying to the south of the Laurentian rocks was known only by the fur-trapper and the explorer at the end of the eighteenth century. Champlain had penetrated from Quebec as far as Georgian Bay, the Récollets and the Jesuits had labored for the Hurons, LaSalle had seen the country as he made toward the Mississippi; but the Hurons had been exterminated and the English fur-trappers had only a few fortified posts on Hudson Bay, and the French at Fort Frontenac and Michilimackinac and Sault Ste. Marie. When the French lost Quebec in 1763 what was known as "Upper Canada" lay a wilderness for twenty years. In 1782 bands of United Empire Loyalists began to come in. Surveyors sent by General Haldimand chose lands in four districts for the loyal exiles: along the St. Lawrence opposite Fort Oswegatchie, around the Bay of Quinte above Fort Cataraqui, in the Niagara Peninsula opposite Fort Niagara, and in the southwest section within reach of Fort Detroit. The settlers were of varied origin—Highland Scots, German, Dutch, Irish, Eng-





YOUNG CATTLE ON PASTURE ON A FARM NEAR OTTAWA



COURTESY NATURAL RESOURCES INTELLIGENCE SERVICE

ONTARIO is an empire in itself with many differences in elevation, soil and climate. In extent it is as large as France and Germany with Massachusetts and Connecticut thrown in for good measure. In the upper picture are contented cattle in the dairy region near Ottawa, while the lower picture shows a log-jam in the rocky bed of the Montreal River.





VINEYARD AND ORCHARDS AT GRIMSBY



COURTESY NATURAL RESOURCES INTELLIGENCE SERVICE

**GRIMSBY** on the Southern shore of Lake Ontario is in the very heart of the grape-growing section, and everywhere one may see the long straight rows of vines twined upon wire trellises. A dozen varieties are grown, though the Concord is the most popular. The lower picture shows a view of the Ottawa River with the low Laurentians in the distance.



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lish. Most of them had already gone through the pioneer stage in settling new lands and brought valuable experience to bear upon their problems. The government allotted them lands, gave them implements, seed-grain and at first even food. To the forest succeeded small cleared areas, which in turn bore grain and food for man and beast. As well as lumberman and farmer, the settler of those days must be a trapper also to supply his family with food and clothing. Slowly the settlements grew and the trails widened, though the waterways long continued the chief avenues of communication.

Until the end of the century the Loyalists continued to come, and there were besides the loyal Indians of the Six Nations. For these land was purchased, a tract six miles wide on each side of the Grand River in western Ontario, and

here under the Mohawk chief, Joseph Brant, many settled.

To thirty years of struggle with the wilderness succeeded a struggle with their neighbors across the line. In the War of 1812, the Loyalists bore heroic part, fighting as they were to defend the homes so hardly won. When the war began the population of Upper Canada numbered about eighty thousand, for Simcoe the first governor had done all in his power to encourage immigration; and many besides the Loyalists had come in from the United States.

Three years' fighting was a serious setback to the work in field and homestead but the pioneer women were cast in heroic mold and the work was not stayed. At the close of the Napoleonic Wars many British veterans began to pour into Upper Canada and were given lands in townships to the rear of those



Courtesy Royal Canadian Air Force

### AN AIR VIEW OF VICTORIA ISLAND, OTTAWA

Ottawa, the capital of Canada, is beautifully situated on the right bank of the Ottawa River at the head of navigation. The Rideau River and Canal also flow through the city and therefore many houses have water either in front or behind as if the city were in the Netherlands. The city is built on a cluster of hills rising above the rivers.





Courtesy Canadian National Railways

### OX TONGUE FALLS IN THE BEAUTIFUL LAKE OF BAYS

Canada has so many attractive lakes that comparison is difficult but the Lake of Bays in the Muskoka District does not suffer by any comparison. In recent years it has become very popular as a summer resort and excellent hotels have been built to meet the demand. The inset shows surveyors on their way to work in the District of Patricia.

settled by the Loyalists, or in unoccupied ones lying between. By 1826 the population had increased to 166,000; by 1836 it was 374,000 and in 1841 it was 456,000. People lived on their own land, towns were comparatively small. Kingston was the largest; then came York (later Toronto), London, Hamilton, Brockville.

The British settlers brought in good livestock and a knowledge of breeding which placed agriculture on a firmer basis. Oxen were as yet more numerous than horses for they were harder. But now to skins were added homespun garments from the wool of the sheep, and coarse linen fabrics from the home-grown flax. Roads pierced the forests and broke down the isolation of frontier settlements. Mills, schools, churches acted as magnets to draw people together. The Loyalists had sacrificed their first homes on the altar of freedom; they were

not content until the Constitutional Act of 1791 separated their province from Quebec or Lower Canada, and gave them English civil and criminal law, a legislative assembly and council and a lieutenant-governor. The Ottawa River was chosen as a boundary, but the two seigniories of New Longueuil and Vaudreuil were still kept by Quebec although on the western side of the river.

In 1841 the two provinces were united and given responsible government. For twenty-seven years the neighbors were yoked together but the equality of representation granted to them became unfair to Upper Canada as her population first equaled and then surpassed that of Lower Canada. Separate schools conceded to the Roman Catholics in 1863 contributed another grievance. When federation of the provinces was mooted Upper Canada was strongly in favor of





PHOTOGRAPH FROM EWING CALLOWAY

**THE LAKE OF BAYS** is nowhere very broad, but the shore line is long. As its name implies there are dozens of coves and bays, with corresponding peninsulas and promontories offering many beautiful views. In many places the channel is so narrow that one could easily throw a stone across

it. A few rods farther it may broaden out into a commodious expanse of water. The lake is situated in the Highlands of Ontario, and the region is fairly sown with lakes large and small, hundreds if not thousands of them, and every one attractive enough to attract summer visitors.



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**ST. MARY'S RIVER** connects Lake Superior with Lake Huron, and also separates Canada and the United States. The passage however is impeded by dangerous rapids—Sault Ste. Marie. To avoid them the "Soo" canals have been constructed on each side of the river, through which ships

drawing nineteen or twenty feet may pass. Both canals are free to vessels of either nation. The picture shows a vessel in the locks of the canal on the Canadian side. The traffic through these canals is much greater than that passing through even such a waterway as the Suez Canal.



it, for it meant her freedom again from her uneasy yoke fellow. Since Federation (1867) she has been known as Ontario, and Lower Canada as Quebec.

The racial origin of the present population of Ontario is reported by the census as predominantly of the "British Races," chiefly English, Irish and Scotch in the order named. There were nearly six hundred thousand of "other" European origin, chiefly French and German, though almost every people in Europe is represented. There are a few Asiatics, and over twenty-six thousand Indians.

### *The Cities of Ontario*

Great cities and flourishing towns have sprung up in Ontario. There is one city of over half a million—Toronto—and two others with over a hundred thousand—Hamilton and Ottawa—besides several thriving smaller cities. We tell of some of the large cities in the chapter devoted to that subject.

After the American Civil War large tracts of land were opened to farmers in the Middle West, and this not only attracted men from Ontario but the better conditions for growing wheat destroyed the crop in the older east. Then with the development of the Canadian Northwest—the real wheat belt—consequent upon the completion of the Canadian Pacific Railway in 1885, farmers in Ontario suffered from genuine depression. Readjustment of crops took time, but the process developed the fruit-growing and dairy-farming to a very considerable degree.

Ontario to-day is the leading fruit-growing province of the Dominion. She has an abundant rainfall, a suitable soil, plenty of warm sunshine. The Prairie Provinces to the west, the United States to the south, Europe to the east furnish good markets which her facilities by rail, canal and river can easily supply.

### *Where the Fruit Grows*

The St. Lawrence fruit belt extends from the eastern end of the province to the city of Kingston and grows many of Canada's famous apples. In the Ottawa

Valley between l'Original and Pembroke, the Yellow Transparent, Duchess, Wealthy and McIntosh flourish. Prince Edward County on the Bay of Quinte is a notable fruit area, and the orchards continue west through the counties of Northumberland, Durham and Ontario. Toronto provides a great market for central Ontario.

At Port Credit a new small fruit and vegetable country begins stretching along the lake shore to Hamilton. From the base of the ridge or mountain at Hamilton, a great fruit market, a level floor runs to the shore of Lake Ontario. This floor—once a lake bed—forms the famed peach belt of Ontario. Grapes grow here too in profusion—the Concord, Worden, Champion, Niagara and Delaware. The sweet cherry is cultivated only in the Niagara region, though the sour cherry is widely grown as well over that part of the province west of Toronto to Georgian Bay. The Lake Erie district is a home of successful fruit-growing, and in the Georgian Bay fruit belt large crops of winter apples, plums and pears are shipped from Owen Sound.

### *Great Mineral Production*

The total output of minerals by Ontario up to the end of 1928 was estimated at \$1,514,760,185. The total production of metal for 1928 was \$71,199,917 or five millions in excess of the previous record in 1918, when war-time production was at its peak and prices were high. Northern Ontario is largely an unknown region but what is known gives zest to further exploration and development. There is no richer mineralized area than that of Sudbury to the north of Superior with its vast known reserves of base and precious metals in the ore bodies of the nickel ridge and the copper-zinc-lead deposits of the basin which the ridge encloses.

Farther north is the famous Cobalt camp whose silver mines have been turning out for the last twenty years the richest silver ores the world has ever seen. Farther north still are the gold mines of Porcupine which has produced



Courtesy Canadian Pacific Railway

### THE SCHOOL CAR VISITS THE SCATTERED SETTLEMENTS

Some of Ontario is thinly populated and without permanent schoolhouses. The educational authorities and the Canadian Pacific Railway have built school cars to meet the difficulty. Each car contains a bright schoolroom, a library and living quarters for the teacher. It can be moved from place to place, and can visit transient communities such as lumber camps.

gold to the value of \$220,000,000 and is still the largest gold-producing camp in Canada. The Hollinger Mine alone has yielded gold to the value of \$139,000,000. While the major portion of Ontario's output of gold comes from Porcupine, the younger camp at Kirkland Lake is coming rapidly to the fore.

The distribution of this new wealth affects all classes of the community. Mining is even more important than agriculture in providing freight for railways. About one-third of Canada's railway tonnage is made up of the produce of the mines. Many of the virgin areas which are now under exploration for minerals will eventually be taken up for farming purposes, for there are immense stretches of arable land in the north which could sustain a large population apart from mining industries. On the bank of the Grand River in southwestern Ontario is a gypsum mine which has been worked steadily for a hundred

years; in southwestern Ontario petroleum also has been produced for many years and natural gas is used there for cooking and heating.

In the north of Ontario there is a large tract of forests. The Georgian Bay district contains the largest area of white pine in the world and sufficient to supply the trade for a number of years. Ontario has a considerable amount of hardwood, and an inestimable supply of spruce. In the north the characteristic trees are the maple, beech, birch, elm, ash, oak, hickory, pine, cedar, spruce, hemlock. The forest growth of South Ontario is different and the predominant trees are the oak, hickory, chestnut, buttonwood and tulip. The Provincial Government does much to encourage forestry, by schools, by nurseries, by fire protection, by re-afforestation.

Another Loyalist settlement in the Niagara Peninsula, is but a short boat's journey from Toronto. After crossing





PHOTOGRAPH FROM EWING GALLOWAY

**GOVERNMENT DRIVEWAY** which circles the entire city of Ottawa is only a part of an elaborate system of boulevards thirty miles in length. For the most part these drives are bordered with flowers and shrubs and make motoring a delight. Ottawa is an attractive city as well as a busy

one. Long ago it was called Bytown from Colonel By who made the surveys for the Rideau Canal. It was chosen as the capital of Canada by Queen Victoria when Montreal, Quebec, Toronto and Kingston were all vigorously expressing their claims for that honor.





PHOTOGRAPH FROM EWING GALLOWAY

**THE PEACH ORCHARDS** of the Niagara Peninsula are famous. This stretch of land between Lake Erie and Lake Ontario is practically an immense orchard and vineyard. Apples, peaches, pears, plums, cherries and other fruits grow to perfection and there are miles of vineyards as

well. Though fruit has been grown in this section since it was first settled, commercial orchards and vineyards have developed only with improved railway facilities. Peach-growing upon a commercial scale began about 1890 and in 1904 the first fruit was sent to Winnipeg.



## ONTARIO, FORMERLY UPPER CANADA

Lake Ontario and entering the Niagara River the steamer passes by densely wooded banks, where stands Niagara-on-the-Lake, formerly Newark, the first capital of Upper Canada. Here again, as in Kingston, Loyalists succeeded Indians and Frenchmen. Farther up the Niagara River rise the Queenston Heights where in 1812 was fought a memorable battle. Here in heroic resistance fell the Canadian leader Sir Isaac Brock and in his honor a tall monument rises to-day. Either at Queenston or Lewiston it is necessary to land and go by rail up the precipitous gorge toward the thundering Falls of Niagara. To the west of the falls the large station of the Hydro-Electric Commission stands to gather in the power that is thence transmitted hundreds of miles through the province.

Through the garden of Ontario from Niagara to Hamilton, orchards and vineyards stretch their ranks, spreading in spring a lovely panoply of pink and white and in autumn their luscious wealth of fruits. St. Catherine's, high-set upon its hill, has healing waters in its wells, and a fine boys' school. Hamilton, at the head of Lake Ontario, has many industries, which include the manufacture of guns, buttons, brass and jewelry. It stands moreover on the highway of traffic into

western Ontario, and between Detroit and Buffalo factories. By an inclined railway one climbs its "Mountain" to view the far-reaching panorama on every side of fruit lands and tree-encircled farm-houses. It is a scene worthy to be remembered.

On the Grand River where once the Indians forded, stands the modern city of Brantford. Not far away is the burial place of Joseph Brant—Thayendenaga—famous Indian chief. St. Thomas, one of the most important railway centres of the country, and London on the Thames with its Western University, are situated in the fertile stretch of country bordering on Lake Erie. Sarnia on Lake Huron is a starting point of navigation on the upper Great Lakes; the little town of Sault Ste. Marie on the canal between Huron and Superior has iron and steel works, pulp and water mills, dry-docks and shipbuilding plant. Port Arthur, at the head of Canada's inland water route 1,217 miles from Montreal, has a large number of lumber companies operating, as well as water power plants, a pulp and paper mill and various other industries. Near by the city of Fort William has great grain elevators, and the two cities form a connecting link between the Prairie Provinces and the Atlantic.

### ONTARIO: FACTS AND FIGURES

**THE COUNTRY.** Central province of the Dominion of Canada with a total area of 407,262 square miles; land area, 365,880 square miles. Estimated population (1928), 3,229,000; Indian population (1921), 26,436.

**GOVERNMENT.** Administered by a Lieutenant-Governor appointed by Federal Government and a ministry responsible to a Legislative Assembly of 112 members. Representation in Dominion Senate, 24; in House of Commons, 82.

**COMMERCE AND INDUSTRIES.** The province is rich in agricultural and mineral resources. Chief crops are wheat, oats, barley, other grains, potatoes and sugar-beets. Fruit-farming and dairying are extensively carried on. Valuable timber resources include spruce, pine and poplar. Gold, silver, nickel and copper are mined and exported. Leading province in

manufacturing; 9,457 establishments in 1926, with a wide variety of products; flour, automobiles, meat, pulp and paper, butter and cheese, electric power, most important.

**COMMUNICATIONS.** Interior communication furnished by rivers and lakes, supplemented by canals. Railway mileage in 1925, 10,908; length of telephone wire, 1,241,647 miles; telegraph wire, 118,041 miles.

**RELIGION AND EDUCATION.** Population more than three-fourths Protestant; no discriminatory laws. Complete state system of elementary and secondary schools with 725,085 pupils in 1927-28. Five universities, several colleges and professional schools, and one military college.

**CITIES.** Estimated population in 1928: Toronto (capital), 560,890; Ottawa, 121,000; Hamilton, 127,447; London, 66,132.

# FOUR GREAT WESTERN PROVINCES

## *British Columbia and the Prairie Provinces*

The remaining four provinces are really two groups from a geographical standpoint. The Prairie Provinces are much alike, composed for the most part of rolling plains, but much of British Columbia is mountain, valley or plateau. Though there were settlements here much earlier, most of the growth in population is of comparatively recent date. The Prairie Provinces raise the best wheat in the world, and British Columbia has within its borders many varieties of soil and climate. Though the trapper has been followed by the rancher, the farmer, the lumberman, and the factory-worker, many thousands of pelts are still taken every year in the unsettled portions of these Provinces.

IN this chapter it is convenient to consider the Prairie Provinces—Manitoba, Saskatchewan and Alberta—as one unit, and the western province of British Columbia beyond the Rockies as another.

Three events decided the destiny of the Prairie Provinces: in 1670 Charles II issued a charter to the Hudson's Bay Company; in 1783 Montreal fur merchants combined their rivalries in the North-West Company; in 1811 Lord Selkirk received from the Hudson's Bay Company a grant of 116,000 square miles on the Red River. The two companies leaving the open plains of the south to the buffalo, went up the Saskatchewan and reached the great fur country of the Mackenzie. On the Saskatchewan their trading-posts, Fort Carlton, Fort Cumberland and Edmonton House, became famous. From Fort Chippewyan on Lake Athabasca, Alexander Mackenzie in successive journeys explored the Mackenzie to the Arctic, and the Peace River to the Pacific Coast. The publication of his *Voyages* in 1801 directed the attention of a young Scotch philanthropist, Lord Selkirk, to the Lake Winnipeg and Red River country as a promising field for settlement by distressed Scotch crofters. He purchased a large tract of land in what is now Manitoba, Minnesota and North Dakota, and in the spring of 1812 under Captain Miles Macdonell a party of settlers arrived from Scotland.

The establishment of the new colony was not welcomed by the North-West Company, nor indeed by the Hudson's

Bay Company though the latter was not openly hostile. The Nor'Westers resented the threat to their monopoly of fur routes and when in 1814 Governor Macdonell prohibited the unlicensed export of provisions from the colony, the traders lured away many of the colonists to Upper Canada, destroyed the buildings in the settlement and drove the remaining refugees to the shores of Lake Winnipeg. Again by a fresh band of Scotch the settlement was revived. Then the Nor'Westers laid plans for more decided action. They assembled a band of Indians and half-breeds for an attack. Hostilities broke out prematurely, and the governor, Semple, and twenty of his men were killed in an affair afterward known as the Massacre of Seven Oaks. Lord Selkirk meanwhile had secured military aid for his settlement, Swiss mercenaries chiefly from the War of 1812, and with these once more brought back his little band and re-established them. He found it impossible however to secure the punishment of anyone responsible for the Seven Oaks Massacre, though for his own resort to arms he was fined. Bitterly disappointed and dispirited Selkirk retired to England and died three years later. Nevertheless his belief in the great possibilities of the western country has been more than justified.

For fifteen years after his death the executors of his estate controlled the colony, spending large sums of money in efforts to improve agriculture and establish industries. For years the little colony met disaster after disaster: a plague of





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**YOHO NATIONAL PARK** in British Columbia contains some wonderful waterfalls. The Takakkaw Falls, a few miles from the town of Field, jump in three successive leaps, first 150 feet, then 1,000 feet, and finally 500 feet more, tumbling at last in a cloud of spray into the Yoho River. We show here a view of the tumultuous milky green water of the middle falls.





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**TWIN FALLS** are also in the Yoho Valley in Yoho National Park. They are, however, less accessible, as no road for motor cars has yet been constructed, and the visitor must approach from the Yoho camp either on foot or on the back of a sure-footed mountain pony. The falls are fed by the melting Yoho Glacier lying in the high mountains above.



locusts ate the land bare; the Red River flooded and swept away settlements and stock; many colonists in despair left the settlement. But the surviving courageous pioneer was at length rewarded by a series of good harvests and "Peace and Plenty" became his watchword.

Meanwhile the Nor-Westers and Hudson's Bay Company had united (1821) under the latter's name, and becoming aware of the value of the new settlement sought its control by purchasing the Assiniboia district. Difficulties arose out of this situation. The Company was, while governing the colony, actually its rival in trade. Cleavage in interest became manifest and a movement to liberate the colony gained widespread support.

### *The Region Transferred*

Such was the state of affairs when the Canadian government in 1868 took over the territory of the Hudson's Bay Company. The Red River and other western settlements contained at this time a population of 12,000 of whom about five-sixths were half-breeds of French or Scottish blood. The government did not consult the settlers about the transfer of their territory—and seemed in their new surveys to be contemplating forfeiture of land. The Métis rose under Louis Riel and set up a provisional government but Riel's extremes roused such opposition that arrangements were finally completed for the Red River Settlement's entry into the Dominion as the Province of Manitoba in 1870. Riel fled but returned fifteen years later to the Saskatchewan and again organized a provisional government for the Indians and half-breeds. His insurrection was suppressed without serious difficulty and Riel was executed for high treason.

### *British Columbia Joins*

The way was now opened for the extension of the Dominion to the Pacific Coast where a colony (of which we speak below) had already been established. Terms of union were settled upon wherein the government promised to commence within two years and complete within ten

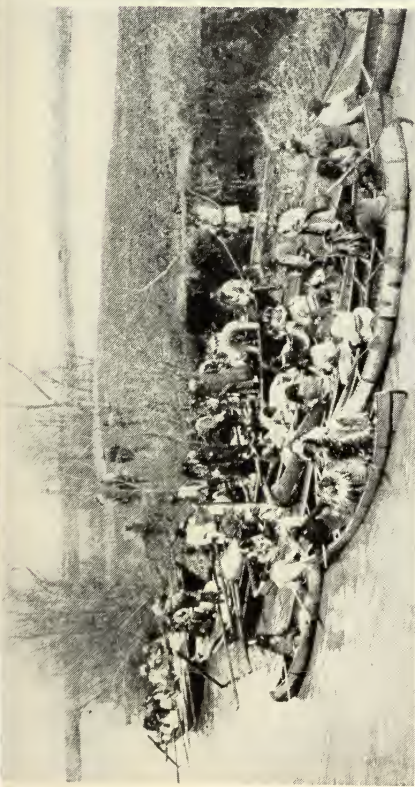
a railway to the Pacific Coast, and British Columbia in 1871 entered the Dominion.

After taking over the prairies the government made surveys and prepared for settlement, but for a while the tide of incoming settlers was not high, and varied from year to year according to conditions. A good crop one season, a summer frost another year, an advantageous change in land regulations, all had their effect. First-comers settled on half-wooded spots as if afraid of the winter on the open plains, but, in 1875, 6,000 Mennonites took up their abode on prairie lands along each side of the Red River. The first Ruthenians arrived in the nineties and founded large colonies in Northern Saskatchewan and Alberta. Icelanders and Scandinavians followed in the north. And with the beginning of successful grain-growing, elevators sprang up along the line and mills for grinding. Ranching was attempted in southern Alberta, the railway touched at more points, special land terms were offered by the Canadian Pacific.

### *The Tide of Immigration*

Finally at the end of the century, Clifford Sifton, Minister of the Interior, by an intensive campaign of advertising in newspapers and pamphlets in Britain, Europe and the United States induced a great tide of settlers. The total immigration into Canada in 1897 was 21,000; in 1902 it was 67,000; in the following year 125,000 and by 1913 it reached nearly 400,000. During this period of rapid expansion nearly as many settlers came from the United States as from Britain, while just over a quarter of the total immigration came from Continental Europe. Not only did people arrive from across the seas and from the south but the people of the eastern provinces moved westward into the new lands.

With the new settlement and resultant crops further transportation seemed necessary. Sir Wilfrid Laurier's government in 1903 agreed with the Grand Trunk Railway Company for another transcontinental railway, the government itself building the part from Moncton to



A PLEASANT SUMMER DAY ON GRAND BEACH, LAKE WINNIPEG

Lake Winnipeg is actually considerably larger than Lake Ontario. Only a few years ago there were scattered fur-trading posts on its banks but with the increase of population it has become a popular resort which is visited during the summer by thousands of pleasure-seekers, who lie

upon the sands or swim in its waters. The inset shows Indians arriving at Winnipeg to celebrate the 250th anniversary of the founding of the Hudson's Bay Company. The charter of the company was granted in 1670 by Charles II to Prince Rupert and seventeen others.

Courtesy Canadian National Railways and Natural Resources Intelligence Service





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**THE MASSIVE RANGE** is sometimes called the Bourgeau Range from the name of one of the principal peaks. The other important peaks are Pilot and Brett. Those with vivid imaginations declare that they can see on Pilot a recumbent figure which suggests the Duke of Wellington. These

peaks are visible from many points. A particularly good view can be obtained from the Bow River, near Banff, and from several different points on the Banff-Windermere highway. This road forms a part of a loop which encloses much impressive and inspiring mountain scenery.





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**MORAINE LAKE** is only nine miles from Lake Louise, and was so named by the discoverer from a moraine deposit which obstructs the outlet and which was left by the last ice-sheet. On one side of the lake, in a semi-circle, are the famous Ten Peaks, formerly numbered, though now

six of them, all over 10,000 feet in height, are named. Except for a tiny tea house, there is no sign of man's presence in the region which remains in its primitive beauty and grandeur. The peaks show many marks of their struggle with the elements through the ages.





Courtesy Canadian National Railways and Natural Resources Intelligence Service

### MILES OF WHEAT FIELDS IN WESTERN CANADA

Canada is now third among the wheat-producing countries of the world. The three Prairie Provinces furnish by far the bulk of this production, though some wheat is grown in every one of the nine provinces. The game of hide and seek behind the melons shown in the inset indicates that Manitoba produces other crops in addition to wheat.

Winnipeg. Thence the railway company went on to Edmonton and through the Yellowhead Pass to the Pacific. A branch was made from the main line to Fort William so as to give an outlet for grain by way of the Great Lakes. A third system, the Canadian Northern, under William Mackenzie and Donald Mann, by construction and purchase had in 1902 nearly 1,300 miles of road in operation between Lake Superior and Saskatchewan and by 1915 the links of a third transcontinental railway system had been welded together. Both the Grand Trunk Pacific and the Canadian Northern found the cost of construction beyond their estimates and were forced to obtain loans from the government, which in turn sought means to recover its investment. Finding none, after the war, it took over the companies altogether under the name of the Canadian National Railways.

What of the problems connected with transfer to the government, with settlement and railway development? First it was necessary to secure title to lands from the Indians. This was done by a series of wise treaties, in which the rights of the aborigines were protected. In subdividing the land for settlement, a plan similar to that in use in the United States was adopted. An area one mile square was employed as the unit of division and this

area, known as a section and containing 640 acres, was divided into quarter-sections of 160 acres. Townships were of uniform size, six miles square and divided into thirty-six sections. At first settlement followed the streams and at Battleford, Prince Albert, Duck Lake, St. Albert and Edmonton colonies were formed, but with the construction of the Canadian Pacific Railway, lands along the railway became most valuable. Order was kept on the plains by the organization of that famous body, the Northwest Mounted Police. At first these police were a police of the wilderness looking after the Indians and criminal whites; as villages and towns sprang up and farmers grew crops they had to "maintain the law" in town and country. When the western towns grew larger they set up their own police forces leaving the Mounted Police as a rural constabulary. In 1905 (the year they received the title of Royal from King Edward VII) the "Mounties" established posts in the Arctic regions to care for the Eskimos. During the World War two squadrons of police went over seas and the provinces of Alberta and Saskatchewan took over their own policing and formed provincial forces of their own. In 1919 it was decided that the Royal Canadian Mounted Police should do the work needed by the Do-

## BRITISH COLUMBIA AND THE PRAIRIE PROVINCES

minion Government all over the country. They still keep in close touch with the Indians, still do an immense amount of work in the Yukon, and are opening up every year new posts in the Arctic.

When the provinces entered Confederation they received annual grants from the Dominion Government. A persistent effort was made by Manitoba to get better terms and in 1912 not only was its annual grant increased but the province was enlarged to more than double its size by the extension of the northern boundary to 60° N. and by the addition of a large triangle extending to Hudson Bay, thus giving the province a seacoast.

Sixty years ago the great plain stretching from the Red River to the Rockies, now the abode of a million and a half of people and forming the provinces of

Saskatchewan and Alberta, was inhabited only by wandering bands of Indians, by herds of buffalo and a few intrepid fur-trappers. Agriculture has been the chief source of the wealth of both provinces; manufacturing has steadily increased; and the coal production of Alberta nearly equals that of Nova Scotia. The farmers, mainly occupied in grain-growing, early formed co-operative organizations to care for the storing and selling of their crop. Thus the wheat-pool has gradually emerged as the medium for the sale of western grain. Owning large elevators at Fort William and Vancouver the pool handles the grain from the local railway to the purchaser. The opening of the Panama Canal has made it possible to send grain to Europe throughout the year without so long a train haul as the eastern ship-



Courtesy Canadian National Railways

### IN A FARM GARDEN AT NORTH BATTLEFORD, SASKATCHEWAN

The development of Saskatchewan as a farming country has been marvelous. In the first twenty-five years of the present century the value of field crops increased about eighty times. This farm near North Battleford is in a section which only a few years ago was thought to be unsuited to any form of profitable agriculture.





COURTESY CANADIAN NATIONAL RAILWAYS

**KINGSMERE RIVER** is a very short stream which joins Kingsmere Lake and Wakesiu Lake in Prince Albert National Park, Saskatchewan. One may accomplish a circuit of a large part of the park by canoe, making only a few short portages between the many lakes and streams. The whole park shows many evidences of the work of the ice-sheets of the past.





**MOUNT SIR DONALD VIEWED FROM MOUNT ABBOTT**



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**THE SELKIRK MOUNTAINS**, a part of which are included in Glacier National Park, are not a part of the Rockies. Mount Sir Donald, named for Sir Donald Smith (later Lord Strathcona) is the highest, 10,808 feet. The great Illecillewaet Glacier shown in the lower picture is near the railroad. Though fed by a great snow field above, it is melting faster than it grows.





Courtesy Canadian National Railways

### CHILDREN IN RURAL ALBERTA GOING HOME FROM SCHOOL

In those parts of the Prairie Provinces which are not yet thickly settled there cannot be a school at every farmer's door. In some cases the children must travel for miles. This picture of the Durness School at Lloydminster, Alberta, shows how the children who attend reach their homes when the daily sessions are over.

ping entails. More recently yet the Hudson Bay Railway has been completed, and offers for a brief summer period a sea-haul shorter by a thousand miles.

The citizens of the Prairie Provinces are very varied in origin—and for this reason education is of vital importance. As early as 1877 the University of Manitoba was established, and it has become the centre of the provincial educational system. The University of Alberta at Edmonton was established in 1905 and the University of Saskatchewan in 1907. In all of these universities agricultural education is an important side of the curriculum.

A map of Saskatchewan would be easy to draw as its north and south boundaries are parallels of latitude ( $49^{\circ}$ — $60^{\circ}$  N.) and its eastern and western boundaries are meridians of longitude ( $109^{\circ}$ — $104^{\circ}$  W.). The area of the province is 251,700 square miles—slightly less than that of Manitoba and greater by 5,000 square miles than the combined areas of Great Britain, Ireland and Norway. The country is for the most part open rolling prairie at an average altitude of 1,500 feet above sea level. In the north it is more broken and as yet but slightly developed. The climate is continental, the summer temperatures almost tropical but with cool

nights. The winter temperature occasionally reaches  $40^{\circ}$  below zero but it is tolerable on account of the dryness and absence of high winds. Light rains fall in summer and only a moderate snow in winter. This dry vigorous climate is healthful for stock. Wonderful lakes are to be found in the northern part of the province, forest-set and rock-framed. The population (1928 estimate) is 851,000, and of this number 75 per cent is agricultural and lives on the land—whose produce constitutes 90 per cent of the provincial income. In 1927 the value of field crops in Saskatchewan was \$347,515,000; the wheat, oats and barley grown are of very fine quality. The wheat is hard and heavy, the oats plump and hard. Rich grasses cover the land in parts not cultivated and upon the grazing lands vast herds of cattle and sheep feed. The only cities of any size are Regina, the capital, Saskatoon and Moosejaw, which will be mentioned elsewhere.

Lying between Saskatchewan on the east and the Rocky Mountains and the 120th meridian on the west, and bounded on the north and south by the Northwest Territories and the United States respectively, is the province of Alberta. Its area, 255,285 square miles, is the greatest of the Prairie Provinces. Formerly almost exclusively a ranching country, it

## BRITISH COLUMBIA AND THE PRAIRIE PROVINCES

has now become a great wheat-producing region, the frontier of the grain-growing area. In the southwest, considerable coal and oil-mining are carried on; lumbering is important in the more mountainous western parts and in the north, while some ranching is still pursued in the less populous sections. Rainfall is somewhat scanty in southern Alberta but extensive irrigation areas have been formed east and north of Lethbridge and along the Canadian Pacific Railway from Calgary to Medicine Hat. Central Alberta is the best settled area in the province with a rich soil and sufficient rainfall. Northern Alberta is sparsely populated, but well watered. Nearness to coastal influence and the prevalence of the chinook wind modify the climate considerably. The great divide in the Rockies forms the western boundary line of Alberta leaving much beautiful mountain scenery within her borders. The important cities are Edmonton, the capital, and Calgary, which are described elsewhere.

Manitoba, the most easterly of the Prairie Provinces and also the oldest in point of settlement, extends roughly from a line joining the west coast of Hudson Bay and the Lake of the Woods to a line approximately the 102nd meridian west. On the north and south it is bounded by the 60th and 49th parallels of latitude respectively. The total area of Manitoba is 251,832 square miles, of which a large part is rolling prairie land, the home of the buffalo in the days of Indian and fur-trader. These prairies are now wheat fields, and instead of Indian and trapper we have the farmer and manufacturer. About 700,000 people live in the province where the British race predominates forming 60 per cent of the population. There are many French in and around St. Boniface, and many other stocks—Germans, Ruthenians, Poles and Jews. A considerable number of Indians still live in the province, no longer roaming the prairies but confined on reserves. We tell of them in another chapter. Win-



Courtesy Canadian National Railways

### RECESS AT A SCHOOL ON THE PRAIRIE, SASKATCHEWAN

Soon after the first farmhouses are built, schoolhouses appear. Naturally they are neither so large nor so expensive as the school buildings in the older parts of the country, but the quality of instruction may be quite as good all things considered. Certainly the children enjoy themselves as much as the city children.





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**BOW FALLS** on the Bow River at Banff are only fifty feet high, but nevertheless they fall in a cloud of spray. The river rises high in the mountains, and at first its course is rapid and rough. A few miles above Banff it slows down and widens out into attractive pools that reflect the

many mountain peaks around the Bow valley. Just beyond the bridge the river quickens its pace and forms rapids, before taking the jump over the falls. The view of the many surrounding peaks from Bow Bridge is a favorite with the many visitors who make a stop at Banff.





**EMERALD LAKE**, about seven miles from the town of Field, is also in Yoho National Park, and does not belie its name. The lake is entirely surrounded by evergreens which grow down to the very edge of the water, and there is hardly a stone visible anywhere along the shores. The waters

too are emerald in color and show many shades and tints of green in varying lights. Our picture looks toward the Van Horne Range. Mount Burgess and Mount Waptu, which are almost as high, are on other sides of the lake and may be reached on foot.

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nipeg is by far the largest city, but Brandon and St. Boniface are growing.

The soil of Manitoba is very rich, yielding wheat, oats, rye and barley abundantly. In the north are great forests of white spruce and jack pine, and from the north too comes a rich harvest of furs, and a promising return of minerals from the famous Flin Flon copper ore and the rich Mandy copper claim in The Pas. Although the winter climate is severe yet there is a great amount of bright sunshine and but little cloudy weather. Rain falls in June and July.

### *The Climate of the Province*

British Columbia is in some respects the most favored part of Canada. Within its boundaries are reproduced all the varied climates of the Dominion and almost every natural feature, while some of its climatic and geographical conditions are peculiar to the province. Extending from the Rockies to the Pacific and from the 49th to the 60th parallel of latitude, it has an area of 355,855 square miles, about three times the size of Italy. The many islands of the Pacific Coast, notably Vancouver Island (area 13,500 square miles) and the Queen Charlotte group, are included in the province. They are noted for their temperate climate and abundant natural resources. The mines, timber areas, fisheries and agricultural resources of the province are remarkable for their quality and extent.

### *Mountains and Valleys*

British Columbia is essentially a mountainous country, comprising practically the entire width of the Cordilleran belt of North America. The chief system in this belt are the Rocky Mountains proper on the northeast side, and the Coast Range on the southwest or Pacific side. Between these are lower ranges running southeast and northwest. Vancouver Island and the Queen Charlotte group are remnants of still another range now almost entirely submerged in the Pacific. The highest peak in the Canadian Rockies is Mount Robson; Mount Fairweather on the International Boundary is the highest peak

in the province. Other high peaks include Columbia, Forbes, Assiniboine, Bryce. Passes over the Rockies are many: the South Kootenay, Crow's Nest, Kicking Horse (traversed by the main line of the Canadian Pacific), the Yellow Head Pass (used by the Grand Trunk Pacific) and the Peace River Pass. The Coast Range renders the coastline of British Columbia remarkable not only for its extent (7,000 miles) caused by deep fjord-like indentations, but also for its great beauty as the mountains rise from the water's edge to a height of 5,000 to 8,000 feet.

Mountains imply valleys and it is in these valleys that the agricultural wealth of the province of British Columbia is produced. The Okanagan Valley, stretching for eighty miles north and south, is famed for its apples, cherries, apricots and peaches. The Fraser Valley floored with rich alluvial soil brought down by the Fraser River grows immense crops of hay and grain and supports a large dairy industry. The benchland on its borders is well adapted for the growing of berries and other small fruits, and here the Japanese have entrenched themselves very strongly.

### *Great Mineral Wealth*

Mountains often contain minerals, and the settlement on the mainland of British Columbia was due largely to a "gold rush" of the early sixties up the Fraser Canyon to the Cariboo country. On Howe Sound rich copper is worked by the Britannia Company; at Stewart on the Alaskan border is the Premier mine, one of the richest small mines known, producing both gold and silver; at Anyox near Prince Rupert more copper is to be found; near the southeastern corner of the province is the greatest zinc-lead mine in the world, the Sullivan mine, and not many miles away at Trail is a great smelter where very pure zinc and lead are made from Sullivan ore.

British Columbia has the largest area of salable timber of any country. Three-quarters of her area is covered with valuable timber and the forests include yellow pine, Douglas fir, red cedar, hem-





Courtesy Canadian National Railways

### THE GREAT TREES IN STANLEY PARK, VANCOUVER



Courtesy Canadian Pacific Railway

### LAKE LOUISE AND THE MOUNTAINS FROM THE LAWN OF THE HOTEL

Lake Louise in Alberta has been called the most beautiful lake in the world. It is not far from Banff, and on its shore is an attractive hotel with a beautiful garden. The shifting colors in the water, the surrounding pine-clad mountains, the snow-capped peaks and the Victoria Glacier opposite combine to make a scene to be remembered.





BRANDING CATTLE AT McLEOD

In the first years of settlement many thought that Alberta was destined to be a range country. Though farming has developed rapidly the cattle industry is still important.

lock, balsam and spruce. Most majestic of all the western forest trees is the Douglas fir, which grows at times to a height of nearly two hundred feet, has a girth exceeding thirty feet and a finished lumber which almost equals oak in beauty.

A large part of the commerce of British Columbia is derived from the sea. The chief product is salmon caught along the coast and in the rivers and inlets. Large canneries are in operation employing many fishermen, white, Indian and Jap-

anese. The headquarters of the halibut fishery are at Prince Rupert and from this point hundreds of boats set out.

Early in the nineteenth century four nations, Spain, Russia, Great Britain and the United States, claimed the "Oregon Country." Spain surrendered her claims to any land north of the present California to the United States and Russia withdrew within the present Alaska, leaving only two claimants for the vast region. Both based their claims chiefly upon exploration, Captain Cook (1778) and Captain George Vancouver (1792-94) had explored the coast. Alexander Mackenzie, Simon Fraser and David Thompson, all of the North-West Fur Company, had reached the Pacific overland. On the other hand, Captain Robert Gray of Boston had entered and named the Columbia River in 1792, and Lewis and Clark had floated down the Columbia. In addition the United States had succeeded to whatever claim Spain had had. Both nations established fur-trading posts, and finally, in 1846, the region was divided by prolonging the 49th parallel, leaving, however, all of Vancouver Island to Great Britain.

Vancouver Island was proclaimed a British colony in 1849, and, in 1858, following a gold rush, the territory on the mainland was proclaimed as British Columbia. Eight years later the two districts were joined in administration. In

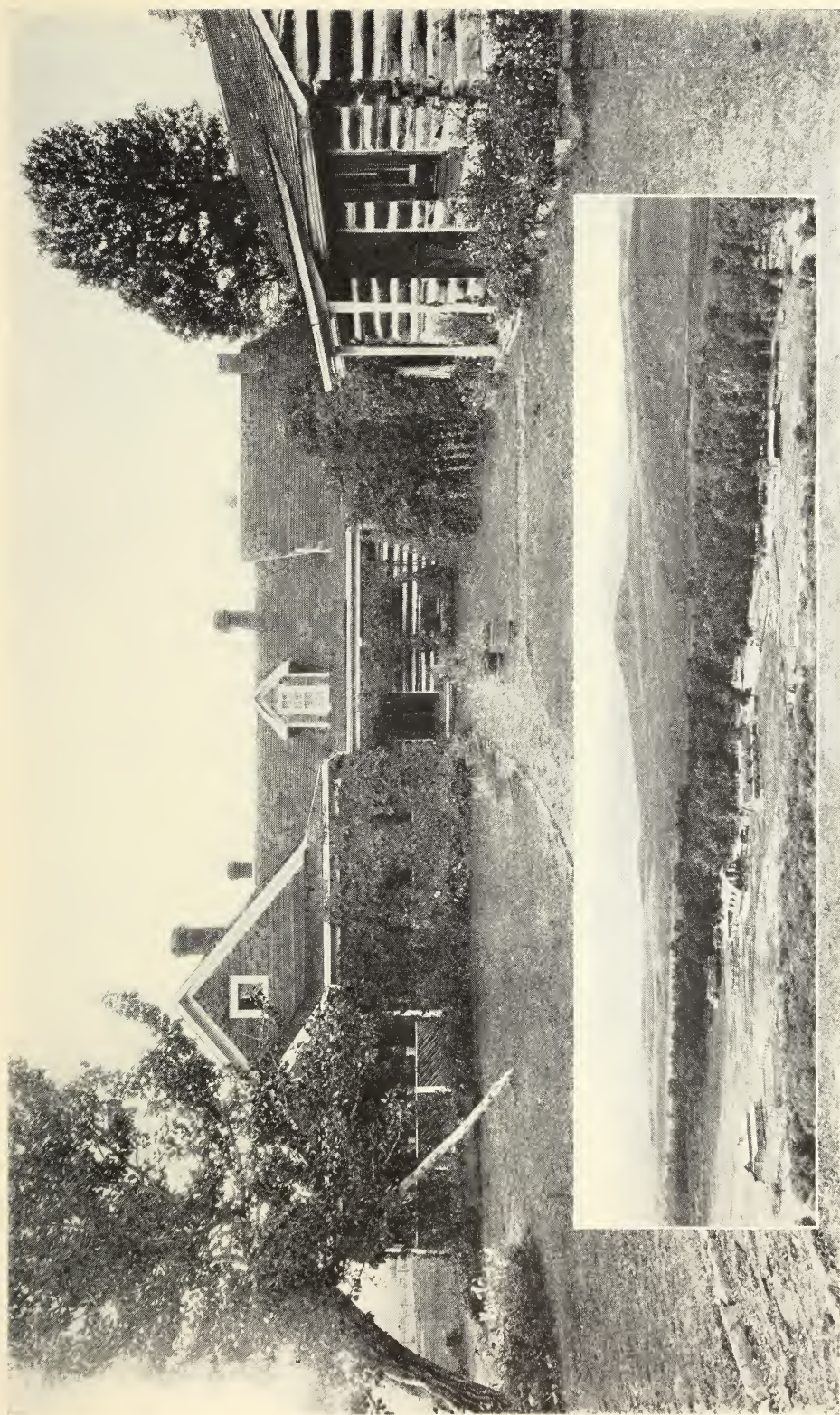


Courtesy Natural Resources Intelligence Service

A ROUND-UP ON THE WIDE PLAINS OF ALBERTA

Though many ranches have been broken up into farms, there are still vast areas on which thousands of cattle roam. At the annual round-up they are driven together, and counted, the calves are branded, and then the owner is able to calculate his profits, or his losses. Nearly all the cattle in the Province have an admixture of good blood.





Courtesy Canadian Pacific Railway and Department of the Interior  
**PRINCE OF WALES' RANCH NEAR HIGH RIVER, ALBERTA**

When the Prince of Wales visited Canada he was so attracted by the life of the West that he purchased a large ranch in Alberta which he has stocked with the best animals procurable, even sending some particularly fine specimens from England. There are not only cattle and horses, but

pure-bred Shropshire sheep also. It is a real ranch, excellently equipped for actual operation, and not simply a show place. The main picture shows the ranch house and the inset shows all the buildings in their setting of plains and hills.

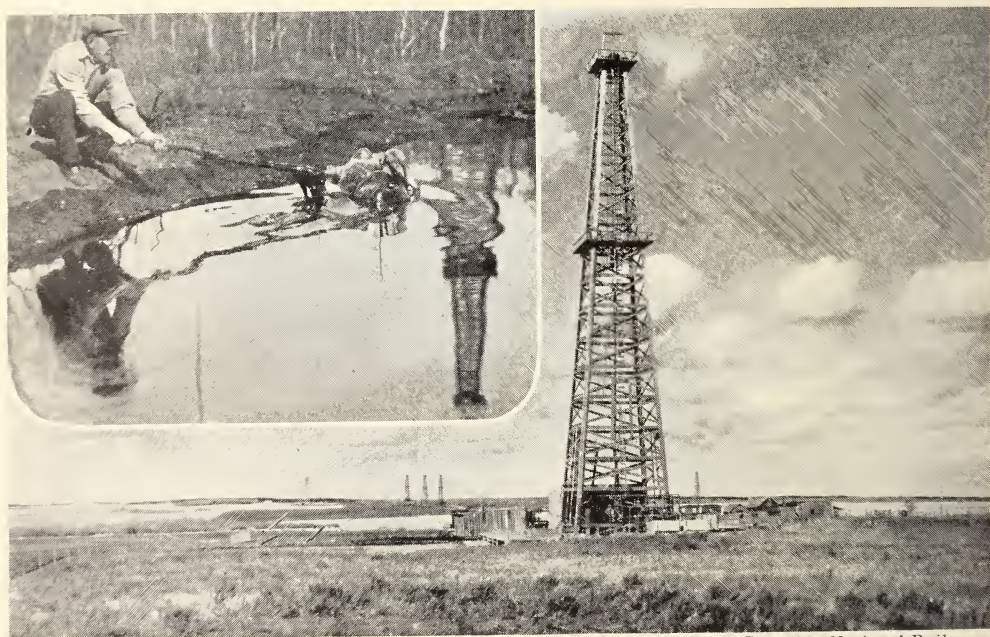




Courtesy Natural Resources Intelligence Service

### THE POINT DU BOIS POWER STATION IN THE WINNIPEG RIVER

Manitoba has only begun to develop her immense water power resources and the few developments of importance are on one stream, the Winnipeg River. The station shown above is owned by the city of Winnipeg and is planned to develop 105,000 horse power. This is used in Winnipeg and some is distributed through the Manitoba Power Commission.



Courtesy Canadian National Railways

### AN OIL FIELD AND A STORAGE POOL IN ALBERTA

Canada is not yet a great oil-producing country though there are hopes of a much greater production. Alberta is the chief source, but Ontario and New Brunswick also furnish appreciable quantities. Our picture shows wells in the field at Wainwright; in the inset is shown a pool for the temporary storage of crude oil.





Photograph by Leonard Frank; courtesy Canadian Pacific Railway

### LUMBER MILLS AT PORT MOODY, BRITISH COLUMBIA

Port Moody at the head of Burrard Inlet, only a few miles from Vancouver, is an important centre for the manufacture of lumber. The busy mills are in the background.

1871 British Columbia entered Confederation on condition that the government would bring a railway through the mountains, and also introduced responsible government. At that time her population was only 36,000, but with the coming of the railway the increase was rapid. In 1921 it was 524,582, and the 1928 estimate is 583,000. The percentage of British born (over thirty) is larger in this Province than in any other.

The development of her rich natural resources has led British Columbia into a difficulty. Facing eastward she looked to the Orient to supply her labor. By 1884 nearly 10,000 Chinese were in the Prov-

ince working cheaply and sending their savings back to China. In 1902 the head tax on Chinese was raised to \$500, but though the Chinaman ceased to come in such numbers in his wake came the Japanese and the Hindu. In market-gardening and fish-canning, in lumbering and in mining the Oriental menace is a real one.

The chief cities of the province are Victoria, the capital, on Vancouver Island, Vancouver on the mainland, New Westminster on the Fraser and Nanaimo in Vancouver Island. At Point Grey the growing University of British Columbia occupies a magnificent site, which was chosen for it after much discussion.



Courtesy Canadian National Railways

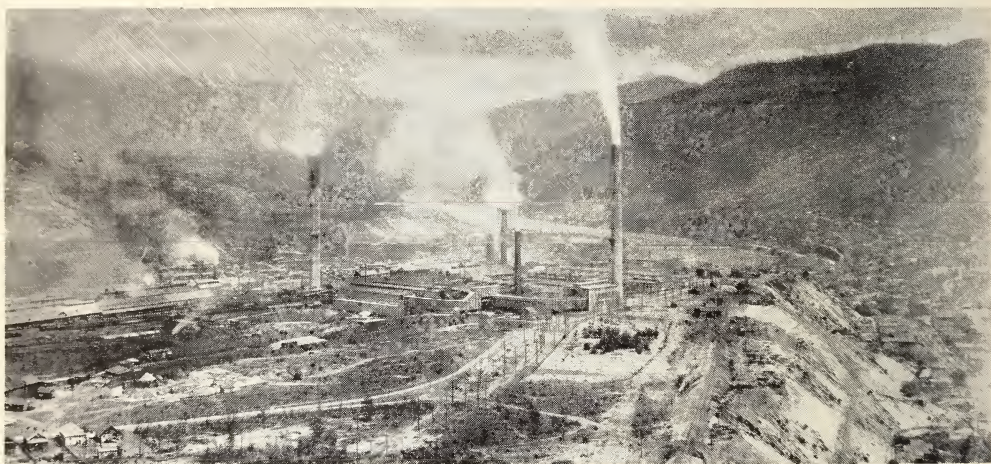
### MAIN AND ONLY STREET IN CRANBERRY PORTAGE, MANITOBA

Cranberry Portage in northern Manitoba is a new town now growing up in the woods on the line of the Hudson Bay Railroad, north and still farther north.

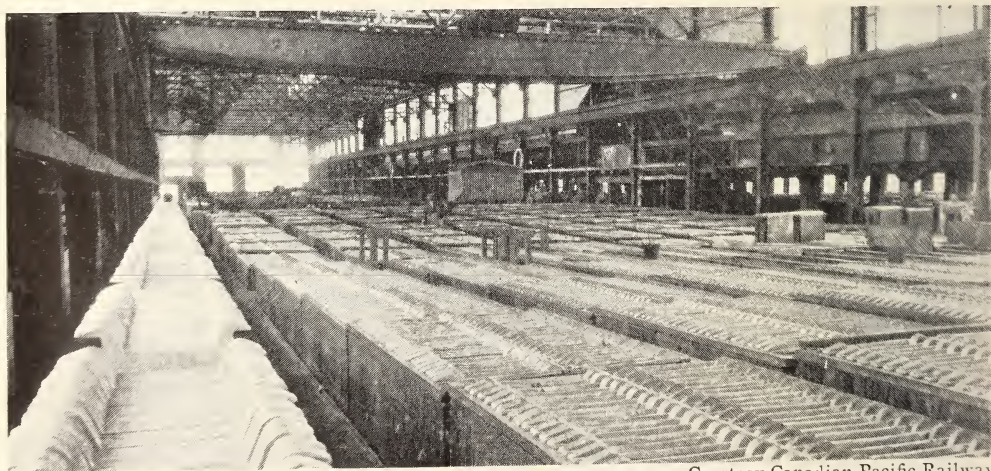




COPPER REFINERY, TRAIL, BRITISH COLUMBIA; STARTING SHEETS



SMEETING WORKS, TADANAC, BRITISH COLUMBIA



Courtesy Canadian Pacific Railway

THE NEW LEAD REFINING ROOM, TADANAC, BRITISH COLUMBIA

British Columbia furnishes something more than three-fifths of all the copper produced in the Dominion. The other Provinces producing copper in commercial quantities are Quebec, Ontario and Manitoba. The development in the last-named is quite recent, but the metal has been profitably mined in Quebec and Ontario for many years.





Courtesy Natural Resources Intelligence Service

### CATCHING SALMON ON SKEENA RIVER, BRITISH COLUMBIA

The salmon fisheries of the Pacific Coast are an important source of food, besides bringing in considerable revenue. Apparently the fish, when grown, visit the same stream in which they were hatched in order to spawn. They are caught by the million on their way from the sea up the rivers. The fish in the inset weighs 75 pounds.



BRITISH COLUMBIA AND THE PRAIRIE PROVINCES: FACTS AND FIGURES

This chapter includes the three prairie provinces of Manitoba, Saskatchewan, Alberta and the coastal province of British Columbia.

*British Columbia* has a total area of 355,855 square miles; land area, 353,416 square miles, including Vancouver Island and Comox with an area of 20,952 square miles. Population (1928 estimate), 583,000. Administered by a Lieutenant-Governor and a Ministry responsible to a Legislative Assembly of 48 members. Representation in Dominion Senate, 6; in House of Commons, 14. Agriculture, fruit-farming, fishing and mining are important occupations. Valuable forest resources. Mineral resources include lead, copper, coal, zinc, silver and gold; the Province ranks second in Dominion in



Courtesy Canadian National Railways  
POCAHONTAS POST OFFICE, ALBERTA

In rural communities and in new sections the post office is the centre of community life.

mineral production. 1,495 industrial establishments (1926) devoted chiefly to saw-milling, fish-curing and packing, pulp and paper manufacture and electric light and power generation. Province about seven-eighths Protestant. Complete system of free and non-sectarian education; compulsory between ages of 7 and 15. In 1927 there were 1,086 public schools with 104,567 pupils; province has 1 university and 2 normal schools. Railway mileage (1927), 5,144; telephone wire mileage, 274,400; telegraph wire mileage, 37,244. Population of cities (1928 estimate), Victoria (capital) (1921), 38,727; Vancouver, 117,217; New Westminster, 14,495; Nanaimo, 9,088; North Vancouver, 7,652; Prince Rupert, 6,393; Nelson, 5,230.

*Manitoba* has a total area of 251,832 square miles; land area, 231,926 square miles. Popu-

lation (1926), 639,056. Administered by a Lieutenant-Governor appointed by the Federal Government and a Ministry responsible to a Legislative Assembly of 55 members. Representation in Dominion Senate, 6; in House of Commons, 17. Agriculture and stock-raising important; the chief crops are cereals and grains. Building materials and gypsum form bulk of mineral products. Extensive freshwater fisheries. 797 industrial establishments (1926) devoted chiefly to flour-milling, slaughtering and meat-packing and butter and cheese-making. Railway mileage in 1928, 4,697; length of telephone wire, 275,073 miles; length of telegraph wire, 29,991 miles. Population about three-fourths Protestant. Education is locally controlled; in 1927-28, there were 3,987 public schools with 148,763 pupils; 1 university and 16 collegiate institutes. Population of cities (1926), Winnipeg (capital), 191,998 (Greater Winnipeg, 280,000); Brandon, 16,443; St. Boniface, 14,187; Portage la Prairie, 6,513.

*Saskatchewan* has a total area of 251,700 square miles; land area, 243,808 square miles. Population (1926), 820,738. Administered by a Lieutenant-Governor appointed by the Federal Government and a Ministry responsible to a Legislative Assembly of 63 members. Representation in Dominion Senate, 6; in House of Commons, 21. Agriculture and stock-raising important; province leads the Dominion in production of wheat, oats and rye. Coal is mined. 674 industrial establishments (1926) devoted largely to flour-milling, butter and cheese-making, printing and publishing. Railway mileage (1926), 7,237; length of telephone wire, 235,582 miles; telegraph wire, 43,680. Province about three-fourths Protestant. Public schools (1927) had 213,404 pupils; province has 1 university. Population of cities (1926): Regina (capital), 37,329; Saskatoon, 31,234; Moosejaw, 19,039; Prince Albert, 7,875; North Battleford, 4,787; Yorkton, 4,458; Swift Current, 4,175.

*Alberta* has a total area of 255,285 square miles; land area, 252,925 square miles. Population (1926), 607,584. Administered by a Lieutenant-Governor appointed by the Federal Government and a Ministry responsible to the Legislative Assembly of 60 members. Representation in Dominion Senate, 6; in House of Commons, 16. Agriculture, particularly cultivation of cereals and grains, and stock-raising are important occupations. Valuable mineral products include coal, petroleum and natural gas. 749 industrial establishments (1926), devoted chiefly to flour-milling, slaughtering and meat-packing and butter and cheese-making. Railway mileage (1926), 5,061; length of telephone wire, 102,884 miles; telegraph wire, 31,275 miles. Province about four-fifths Protestant. Public schools (1926-27) had 154,380 pupils; province has 1 university and 2 normal schools. Population of cities (1926): Calgary, 65,513; Edmonton (capital), 65,163; Lethbridge, 10,893; Medicine Hat, 9,536.

# CANADIAN CITIES

## *Some of the Chief Cities of the Dominion*

Though Canada is usually classed as an agricultural country, it has some great cities, more small ones, and many prosperous towns. Some have about them the indescribable flavor of an older civilization; others were founded almost yesterday. From Halifax, the Atlantic gateway, to Victoria, three thousand miles away, they are strung at irregular intervals almost upon a line. Some are more interesting than others, but there is hardly one which has not something distinctive, and each is to its inhabitants the best city in the length and breadth of the Dominion.

CANADIAN cities present strange contrasts and striking contradictions to the foreign, or even to the Canadian traveler. Some are busy and dynamic, raising great masses of steel and stone toward the skies; others are staid and sober, with an air of dignified leisure. Some are distinctive and unusual; others are much alike. Some are old, as we count age in the New World; others are unkempt and irregular because they are so new. However, if one knows their history, and observes closely, the traveler will find something interesting in every one of them.

Canada had in 1921 two cities with more than half a million population (Montreal and Toronto), four more with over a hundred thousand (Winnipeg, Vancouver, Hamilton and Ottawa), five more with over fifty thousand (Quebec, Calgary, London, Edmonton and Halifax), seven more with over twenty-five thousand, and thirty-seven with over ten thousand each. Many of these have moved into a higher class since 1921, and others below 10,000 then have passed that figure now. Neglecting, however, the increase of city-dwellers it is interesting to note that 322 people out of every thousand in 1921 lived in such cities.

Though settlement in Canada progressed from east to west, some of the first towns founded have not grown into cities, but remain villages. Annapolis Royal had less than a thousand people in 1921. However, for convenience we shall begin with Halifax in the East, and mention some of the principal cities in geographical order until we reach the Pacific Ocean.

The city of Halifax (founded in 1749) is on a beautiful harbor which is a natural inlet. Much money has been spent by the Dominion Government to improve the docks, because Halifax is a good winter port when ice prevents access to Quebec and Montreal. From our ship we can see the stone Citadel, the chief military headquarters of Nova Scotia for over a hundred years. The city, containing some 60,000 people, is built on a hill, has a spacious Cathedral, a fine University and handsome stone and brick buildings. The public gardens and Point Pleasant Park, left to a great extent in a natural state, are extremely beautiful. Behind the city is an arm of the sea (known as the North-West Arm) with high, well-wooded shores, and covered in summer with canoes and sailing craft. It is one of the finest aquatic playgrounds in the world. Dartmouth across the harbor, though a separate town, is practically a suburb of Halifax. The other important towns of the Province have been mentioned elsewhere.

Prince Edward Island has only one city—Charlottetown—and that a small one, founded in 1750 as Port La Joie, but its French origin is almost forgotten. It is one of the old capitals of America, as it was designated as such in 1773. The surroundings are very attractive and one who visits it always keeps a pleasant memory. The population has varied little in forty years. New Brunswick's two largest cities, St. John and Moncton, have already been mentioned. St. John is built upon solid rock, and was founded as a fortress rather than as a town. Many of the citizens are





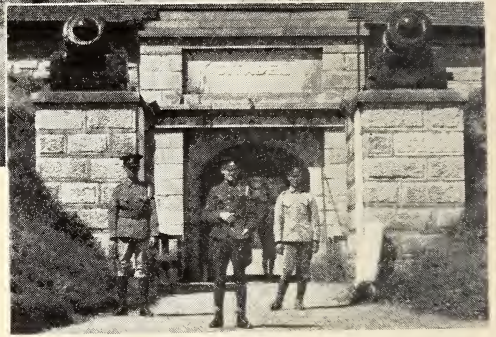
Courtesy Canadian Pacific Railway

### HALIFAX FROM THE CITADEL

One of the best views of Halifax and the harbor is that from the Citadel, once considered a very strong fortress. The father of Queen Victoria was once the commandant of the fort.

descended from Loyalists who adhered to King George III and, in consequence, were forced to leave the United States. Though the Reversing Falls are, perhaps, the most famous object of interest the city has much to offer besides. The radio broadcasting station at Moncton is heard far and wide in both Canada and the United States.

Under the French régime the two fortified *villes* of Quebec and Montreal were not really cities: what importance they had was due to their situation and not



THE CITADEL GATE

to their size, which for Quebec in 1754 was only eight thousand souls, including the troops, and for Montreal, including one hundred and fifteen of the garrison, only four thousand. To-day Montreal is a city of over half a million and who shall say what it may be a hundred years from now?

Let us visit the northern capital of Quebec, rising Gibraltar-like from its wide river. At first sight, one would see a great fortification crowned by battlements but as details grow plainer we see the shadowy mass of houses at the base of the rock which forms the lower town, with its mansard roofs a veritable bit of Normandy. Higher we gaze and there are Laval University and the Seminary, the Governor's garden, the Post Office, Champlain's monument, the Château Frontenac, Dufferin Terrace overhanging the cliff, the Wolfe-Montcalm monument and finally above them all the Citadel. "Je me souviens," the motto of Quebec, is self-imprinted on the scenes in her streets to-day. From the Citadel one looks across the wide St. Lawrence, ship-dotted, to the heights of Levis, the Isle of Orleans, and on and on till the mountain ranges pass into the distance.

"If you would see Quebec at her best



Photograph by Macaskill

**IN THE PUBLIC GARDENS, HALIFAX**  
The Public Gardens contain fourteen acres, and present an attractive picture at all times.





Courtesy Canadian National Railways

## THE REVERSING FALLS AT ST. JOHN, NEW BRUNSWICK

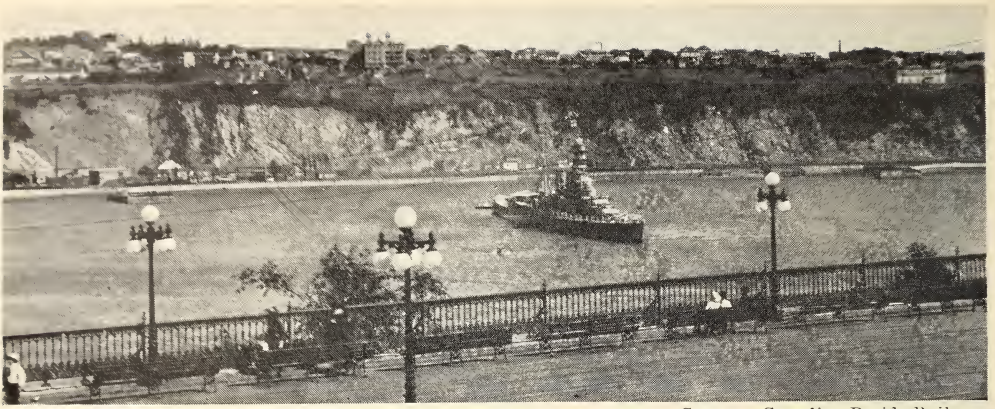


Photograph by Royal Canadian Air Force

## VIEW OF THE DOCKS AT ST. JOHN, NEW BRUNSWICK

St. John, the largest city in New Brunswick, is an important port open the year round. The dock facilities, already considerable, are to be enlarged in the near future. The city itself was founded by the French (1631-35), but Loyalists, chiefly from New England, arrived in 1783.





Courtesy Canadian Pacific Railway

## VIEW FROM DUFFERIN TERRACE WITH THE BATTLESHIP HOOD IN THE RIVER

Dufferin Terrace is a wooden platform built along the cliffs high above the Lower Town. It was rebuilt by the Earl of Dufferin while he was governor and is a favorite promenade. The view in every direction is superb. The Lower Town and the wide expanse of the St. Lawrence are spread before the eyes, and opposite are the forts and churches of Levis.

—I do not say her scenic best, but Quebec *elle-même*, in her true character—you should come in the winter season when she has donned her white nun's robe, when the trippers have departed, and the city knows only herself, and Boreas, and her past. Then she is indeed like no other city on the continent—a rock of vast and exquisite silences. In the tinkling of the sleigh bells there is even something mystic—as of the swinging of censers and the telling of beads.”

Montreal, ancient Ville Marie, founded on the Island of Montreal in 1643, is a port for ocean-going ships three hundred miles nearer Liverpool than is New York, and at the foot of the great system of rivers, lakes and canals upon which the commerce of the interior is carried to the seaboard. Situated on the St. Lawrence, the greatest river of Canada, it is, besides, headquarters for the great railway systems and occupies the centre of a fertile plain almost as large as England. Transportation is closely connected with trade and Montreal has kept her leadership as the banking centre and headquarters of many of the great commercial enterprises of Canada. High above its busy wharves, its skyscrapers, its noisy streets, looms its mountain, dominating the scene and imparting majesty to it.

Everywhere upon the great gray city lies the seal of the Church: its buildings stand on every hand—cathedral, convent,

seminary—its priests and nuns throng the streets—Jesuits, Dominicans, Franciscans, Redemptorists. In the impressive business district of St. James Street and Place d'Armes, are the stately Bank of Montreal, the great Church of Notre Dame, the Seminary of St. Sulpice (the oldest building in Montreal), the Court House, the City Hall, the Château Ramézay, the Post Office, the offices of the newspapers and many of the ancient shrines. In the Place d'Armes itself stands a striking figure in bronze erected to the memory of the founder of Montreal, Maisonneuve. This is the work of the Canadian sculptor, Louis Philippe Hébert.

The mixture of race and creed has endowed Montreal with a variety of hospitals and philanthropic institutions. The oldest hospital is that of the Hôtel Dieu, founded in 1644, and rebuilt in 1861 to contain both a hospital and a nunnery. The Order of the Gray Nuns, founded in 1737, has a great hospital in Gay Street. The Montreal General Hospital was founded in 1819 by public subscription, and the beautiful Royal Victoria on the slope of Mount Royal is a monument to the generosity of Lord Strathcona and Lord Mount-Stephen. Montreal has two distinct systems of schools for its children, one for Roman Catholics, one for Protestants, each governed by a board of commissioners. Unlike Ontario, Quebec makes no provision for a provincial uni-

## CANADIAN CITIES

versity, but James McGill (1744-1813) left property for the foundation of a university which to-day embraces five faculties, many fine buildings, and a large roll of students drawn from all over the country. The University of Montreal, once a branch of the Laval University of Quebec, and now independent, has faculties of arts, law, medicine and theology, and a rare collection of Canadian books and manuscripts.

The suburbs of Montreal are very beautiful—Verdun, St. Hilaire, Sault au Recollet, Laprairie, Lachine. Lachine, granted by the Sulpician Fathers to the adventurous LaSalle, commemorates in its name his *idée fixe*—the passage to China and the East. Before the building of the canal Lachine was a very busy place for all merchandise was transhipped at this point to avoid the rapids.

Sherbrooke, 100 miles almost due east of Montreal and south of the St. Lawrence, is beautifully situated and is noted for its manufacture of wool, cotton and machinery, though it has not grown so rapidly as some other cities.

Before we go to the western cities of Ontario let us pause for a moment at ancient Kingston, the "Limestone City" so-called, whose gleaming white buildings of local stone are well set off by summer green or winter snows. Kingston, the ancient port of Frontenac at the junction of the St. Lawrence with Lake Ontario, was under the French régime a protecting fort for the *voyageurs* and trappers of Upper Canada. It was captured in 1758 by Bradstreet of the New England Militia, and for a while its history paused. But the coming of the Loyalists in the summer of 1784 wakened the ancient fort to new



Courtesy Canadian Pacific Railway

### TWO VIEWS OF THE CHÂTEAU FRONTENAC HOTEL

Fronting on Dufferin Terrace is the Château Frontenac Hotel, one of the finest hotels in Canada. It resembles an old French château, though the interior naturally has many conveniences and luxuries of which the French nobility never dreamed. The inset shows how the hotel appears from the Lower Town with the old French houses in the immediate foreground.



## CANADIAN CITIES

life. The first legislative council of the new government of Upper Canada was convened under Simcoe in the Limestone City; one of the King's mills was set up on the Rideau; a shipping yard grew up in the War of 1812, a Royal Military College was founded. Queen's University, founded by royal charter in 1841, has be-

three hundred churches many are beautifully designed. The University of Toronto, liberally supported by the Government, is a great institution with some five thousand students, and many fine buildings, including Hart House, University College, Trinity College and Victoria. In the city also are McMaster University



Courtesy Department of the Interior.

Courtesy Canadian Pacific Railway

### ST. JAMES STREET, MONTREAL, AND MAISONNEUVE MONUMENT

St. James Street is one of the leading business streets of the city. Here on the left we see the colonnaded entrance of the head office of the Bank of Montreal, the oldest bank in Canada. Between St. James and Notre Dame streets is the Place d'Armes where stands the spirited statue of Sieur de Maisonneuve by the Canadian sculptor, Louis Philippe Hébert.

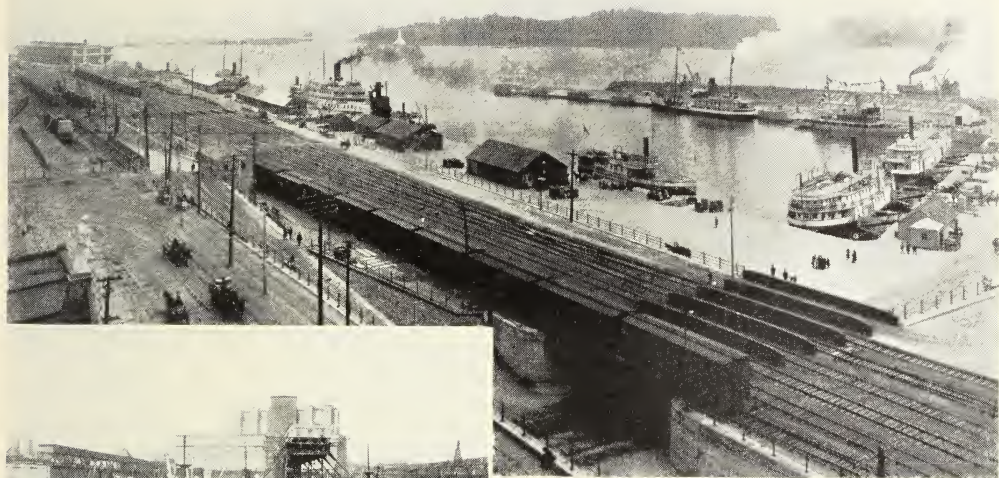
come one of the foremost of Canadian universities.

Toronto, the capital of Ontario, has made great strides since the days of its infancy as "Muddy York." To-day its population is upward of 700,000, and it occupies an area of 32 square miles. Built on a slope of land rising north from Lake Ontario to a height of over two hundred feet it overlooks a fine natural harbor, formed by a string of islands. Of its

and fine boys' and girls' schools. The downtown sections of Yonge Street, King Street, Bay Street with their modern skyscrapers are indicative of many thriving industries. The residential districts of Toronto are beautiful with wide shady streets bordered by beautiful houses; the "Hill" to the north and "Rosedale" north-east are particularly favored.

Ottawa, capital of the Dominion, is magnificently situated on the Ottawa





THE HARBOR, MONTREAL



Courtesy Canadian Pacific Railway

#### DOWN BY THE ST. LAWRENCE IN MONTREAL

Except in winter the harbor in Montreal is a busy place. Ships of large size can come up the river. The inset shows ships of four different nations loading. Below is Place Jacques Cartier with the memorial column surmounted by a statue of Lord Nelson. Bonsecours Market adjoining is an interesting place on market days when it is always crowded.





Courtesy Canadian Pacific Railway

### THE ARTS BUILDING, MCGILL UNIVERSITY, MONTREAL

McGill University was founded in 1821 by the bequest of James McGill, a native of Scotland, and is a famous institution with many departments and several affiliated colleges.

River. It has a population of over a hundred thousand, largely occupied in the Civil Service. Canada's Parliament Buildings stand commandingly on a high bluff overlooking the Ottawa River. „No Dominion in the Commonwealth has housed its Parliament so sumptuously. A lofty

graceful tower rises majestically above the main structure; the library attached is polygonal with a dome supported by flying buttresses. Hull to the north (and over the boundary in Quebec province) is a very hive of industry; for from the northern woods come enormous rafts of lumber



Courtesy Canadian Pacific Railway

### KING STREET IN SHERBROOKE, PROVINCE OF QUEBEC

Sherbrooke, lying at the confluence of the St. Francis and the Magog rivers, is the chief city in the Eastern Townships which were first settled by Loyalists from the United States.





Courtesy Canadian National Railways

### VIEW OF SHERBROOKE, QUEBEC, ACROSS THE MAGOG RIVER

The Magog River takes its rise in beautiful Lake Memphremagog which lies chiefly in Quebec, but partly in Vermont. The picturesque rapids of the Magog are within the limits of the city.

down the Ottawa, Rideau and Gatineau rivers, to feed the mills. Across from the Parliament Buildings is the Château Laurier, one of the finest hotels on the continent, run by the Canadian National Railways.

Rideau Hall, the residence of the Governor-General, is a large rambling building, surrounded by well-kept grounds and overlooking a superb stretch of the Lower

Ottawa, with the blue Laurentian Hills to the north as a background. Many fine parks afford open spaces for rest and beauty. Two miles out of Ottawa is the Government Experimental Farm where experiments are carried on in field and garden produce.

Ontario has more cities than any other province, and most of them have been mentioned in the chapter on the province.

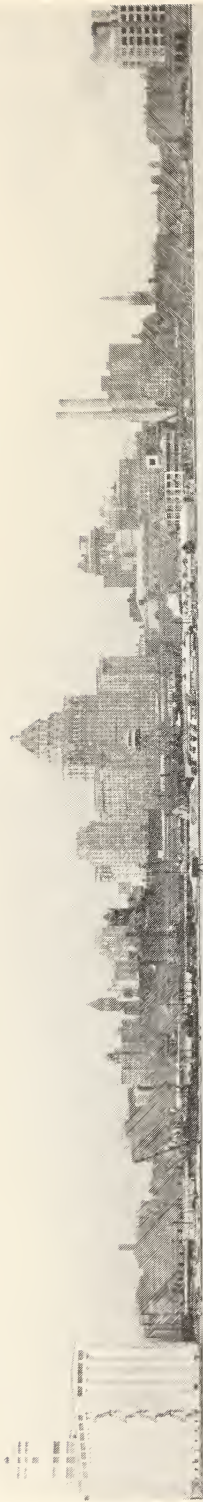


Photograph by Ewing Galloway

### PART OF THE CAMPUS OF QUEEN'S UNIVERSITY, KINGSTON

Queen's University, Kingston, was founded in 1841, and is a strong institution with many excellent buildings filled with students. It is only a stone's throw from Lake Ontario.





Courtesy Canadian Pacific Railway

#### THE NEW SKYLINE OF TORONTO FROM THE WATER SHOWING THE ROYAL YORK HOTEL IN THE CENTRE

Toronto in recent years has been building vertically as well as expanding horizontally as this view of the skyline shows. The great pile in the centre is the Royal York Hotel, the largest hotel in the British Commonwealth. The great elevator indicates a grain-exporting port.

London, however, almost west of Toronto, is over a century old. Many of the street and local names are the same as those of the great city from which it took its name. Hamilton, at the western end of Lake Ontario, was founded in 1778, and the growth has been steady. Its manufactures are numerous and important, including the largest factory producing agricultural implements in the British Empire. In the use of hydro-electric power the city stands first in Canada. The public institutions are numerous, and of high grade. In few cities are residential streets so attractive.

Fort William and Port Arthur in the Thunder Bay district of Lake Superior are only four miles apart and are often called the "Twin Cities." Here are rows of enormous elevators in which the grain brought from the Western Provinces by train is stored until it can be loaded into the steamers to feed hungry Europe. There are besides great pulp and paper mills. These cities, though in Ontario, partake of the nature of the West to which we now turn to see the new cities which have grown up in the Prairie Provinces, after which we cross the Rockies on our way to the Pacific.

Winnipeg, now the third city in Canada, began as Fort Garry, a Hudson's Bay post about 1820; but in 1871, when the Hudson's Bay Company transferred the territory, the population was only 241. In fifty years it grew to 179,000; five years later it was 192,000 and now it is considerably more than 200,000. The buildings, public and private, would do credit to a city of half a million. The city, built at the junction of the Red River and the Assiniboine, lies in a plain, centuries ago the bed of a great lake. There is unlimited room for expansion. Fortunately the earlier settlers realized the fact and wisely laid out the main streets so wide that congestion is reduced to a minimum. The city is the chief financial centre of the West, the greatest grain market in Canada, and must grow greater as the West develops. Winnipeg is often called the "Chicago of the West" and deserves the name. Like Chicago it is built on the edge of the prairies and drains them.

## CANADIAN CITIES

Brandon is the next city in size and is a considerable wheat market, and has as well numerous manufacturing establishments. St. Boniface, really a suburb of Winnipeg, is largely French in population and in manufactures ranks next to Winnipeg. With its suburbs Greater Winnipeg claims 280,000 people.

Regina, the capital of Saskatchewan, was the seat of government and also the headquarters of the Mounted Police in territorial days. Once, so it is said, it was called "Pile o' Bones" from the accumulation of the remains of slaughtered buffaloes. During the last twenty-five years it has grown from an ungainly town of wooden houses into a thriving city with fine buildings and good streets, an excellent water supply and many manufacturing enterprises. The Government Building is imposing. Regina is the distributing centre and the central market for

an immense region. The park acreage is large, and the inhabitants take great interest in the appearance and improvement of their city. Saskatoon, the second city of the province, is a growth of the twen-



CITY HALL, TORONTO



Courtesy Canadian Pacific Railway

### PARLIAMENT BUILDINGS AND MACDONALD MONUMENT, TORONTO

The Provincial Parliament Buildings of Ontario stand in Queen's Park not far from the University of Toronto and are both dignified and imposing. The statue is that of Sir John A. Macdonald (1815-91) whom many rank as the greatest name on the roll of Canadian statesmen. The public buildings of the Province are generally substantial and attractive.





Courtesy Canadian Pacific Railway

### MAIN HALL OF THE UNIVERSITY OF TORONTO

The main building of the University of Toronto is one of the best modern adaptations of the Norman style of architecture. The tower was finished in 1859 but burned and was rebuilt. The view from the tower includes the whole city and much of the surrounding country. The main entrance is through the tower which opens into a spacious vestibule.

tieth century, for in 1901 the population was only 113. It lies on the south branch of the Saskatchewan 160 miles northwest of Regina, and is in the heart of the hard wheat belt. Naturally it is more important as a commercial and distributing centre, though manufactures of flour and other cereal foods and of tractors have developed. The planners of the city left abundant space for parks and streets. The University of Saskatchewan, the Provincial Agricultural College, and one of the Dominion Experimental Farms are here. Moose Jaw to the west of Regina has important flour and lumber

mills and manufactures agricultural implements.

More than a century ago, Edmonton was already an important fur-trading post and became the capital of Alberta in 1904. Like other cities of the Prairie Provinces most of the growth has come in recent years. The city lies on both sides of the North Saskatchewan in the centre of an excellent farming country, is surrounded by coal mines, and is not far from natural gas fields. Meat-packing, butter-making and the manufacture of flour and other cereal foods are important industries. The railway connections are



Courtesy Canadian Pacific Railway

### CONVOCATION HALL, UNIVERSITY OF TORONTO

The University of Toronto is said to be the largest university in the whole British Commonwealth, and is one of the leading institutions of the English-speaking world. In the laboratories the discovery of insulin was made, and the medical school has gained a high reputation. The Convocation Hall above is quite different architecturally from other buildings of the University.





THE DOMINION ASTRONOMICAL OBSERVATORY, OTTAWA



Courtesy Canadian Pacific Railway

#### WHERE MUCH OF THE WORK OF THE GOVERNMENT IS DONE

The Parliament of the Dominion is by no means the whole government. An entire group of buildings has been erected to house the various departments, and more are needed. This one Government House is beautifully located in a velvet lawn with some fine trees. The Dominion Observatory above is on the grounds of the Central Experimental Farm just outside the city.



## CANADIAN CITIES

exceptional, and the climate is excellent. The wheat that won the world's championship in 1929, was grown north of the city. The dignified Parliament Building stands on one side of the river and the buildings of the University of Alberta on the other.

Calgary, the next city in size, began as a post of the Mounted Police, and was then a "cow-town" when southern Alberta was devoted chiefly to ranching. It has become a busy, thriving city. The influence of the irrigation works of the Canadian Pacific has changed the region into one of mixed farming, though cattle, sheep and horses are still raised in large num-

bers. The city gets its electric power from the Bow River, and also has an abundant supply of natural gas. The Provincial Institute of Technology is here and the city is an important railway junction.

Lethbridge and Medicine Hat in the southern part of the province are the only other towns of importance. Both have numerous manufacturing establishments and the latter is favored with immense stores of natural gas.

British Columbia has two cities which must be considered, Vancouver and Victoria, the capital. Vancouver, on the mainland, is the greatest port in Canada

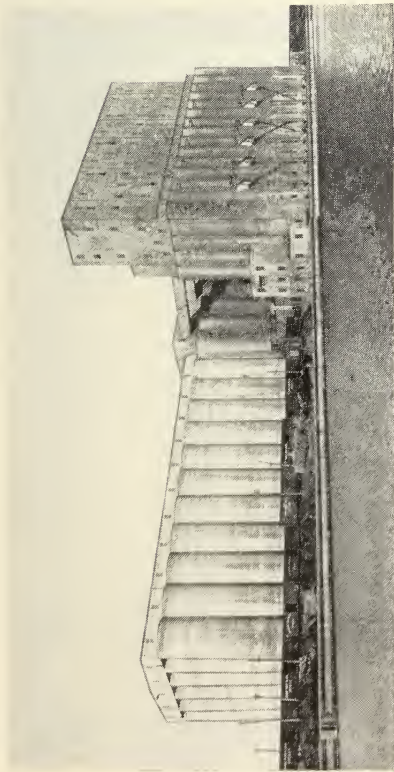


Courtesy Canadian Pacific Railway

### HAMILTON, ONTARIO. JAMES STREET, NORTH FROM MAIN

Hamilton, at the west end of Lake Ontario, is one of the busiest cities in Canada, particularly since the development of cheap electric power which runs most of the factories and is also extensively used in many of the homes. The city is in the heart of the great Niagara fruit district, and the country around is beautiful.





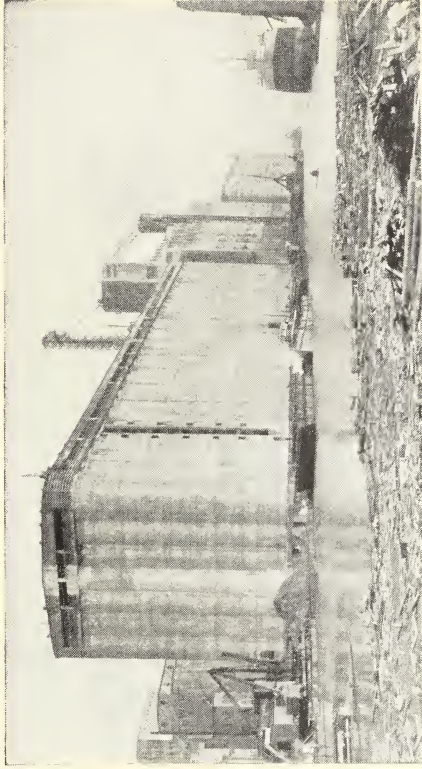
ENORMOUS GRAIN ELEVATORS AT FORT WILLIAM



KAMINISTIKWIA RIVER, FORT WILLIAM



THE TWIN CITIES OF FORT WILLIAM AND



Courtesy Canadian National Railways and Canadian Pacific Railway  
PORT ARTHUR WHERE EAST MEETS WEST

These two cities, just off Lake Superior and only a few miles apart, are in Ontario though they seem to be connected with the West. Through them the greatest part of the wheat exported from the Prairie Provinces passes. The upper pictures show the elevators at Fort William, while one of the lower shows a view of the city of Port Arthur, and the other one of the storage elevators. The Canadian National Railways elevator at Port Arthur, with a capacity of eight million bushels, is said to be the largest in the world and can unload six hundred cars daily.



and one of the finest natural ports in the world. Through it pass millions of bushels of wheat, immense quantities of timber and large shipments of other products, some on the way to the Orient, others to supply the nations to the south, while many cargoes go through the Panama Canal on the way to Europe. There are many and varied manufacturing establishments. Fifty steamship lines run to dif-

ferent parts of the world. Stanley Park is one of the most famous parks in the world. It is surrounded by several attractive suburbs. Like several other western cities, Victoria, on Vancouver Island, was founded as a trading-post of the Hudson's Bay Company. When Vancouver Island became a crown colony, the town was designated as the capital, and continued as such when the island was joined to the mainland colony of British Columbia. Situated on a fine harbor, with attractive country

behind and enjoying a delightful climate, the city has long been known as one of the most charming residence cities in the world. Some one has called it a "bit of Old England in New Canada." It is a city of flowers and gardens. In recent years manufacturing has made great strides, and commerce has greatly increased. The Government buildings are impressive, and the Astrophysical Ob-



© Park and Co.

#### ALEXANDER GRAHAM BELL MEMORIAL AT BRANTFORD, ONTARIO

Alexander Graham Bell was born in Scotland and came with his father's family to Brantford in 1870. Though he soon removed to Boston, he continued to visit Canada and while in Brantford in the summer of 1874 conceived the method of transmitting speech which became the telephone we all know. This memorial (with the inventor on the steps) is in Brantford.

servatory has the second largest telescope in the world.

New Westminster, the third city of the province, was the capital of British Columbia before the union with Vancouver Island, and its name was chosen by Queen Victoria. It is a centre of the canning and lumber industries. Prince Rupert on Kaien Island is the port at the terminus of the Grand Trunk Pacific division of the Canadian National, the shortest route to the Orient. The site of the city was blasted out of rock above the magnificent





Photograph from Ewing Galloway

Photograph by Royal Canadian Air Force

### BIRD'S-EYE VIEW OF WINNIPEG, MANITOBA

Winnipeg, the capital of Manitoba, at the confluence of the Red and the Assiniboine rivers, is the largest city in the West, and its inhabitants believe it will some day be the largest city in Canada. The development in trade, commerce and manufacturing has been phenomenal. The inset shows the great building constructed for the use of the government of the Province.



© Associated Screen News Limited

### REGINA, SASKATCHEWAN; SCARTH STREET, LOOKING NORTH

Regina, the capital of Saskatchewan, was built on the prairie, and owes its importance to the agricultural development of the Province. It has twelve railway lines radiating in every direction, and naturally has become a great distributing centre. Particular attention is given to the planting of trees along the streets of the residential sections.





Courtesy Canadian National Railways

## SASKATOON, SASKATCHEWAN, ACROSS THE SOUTH SASKATCHEWAN RIVER

Saskatoon, the second city of the Provinces, is another of those magic cities which have grown up almost in a night and yet displays solidity of growth. It is also an educational centre. The University of Saskatchewan, the Agricultural College and a normal school are located here and also the provincial experimental farm. Manufactures are varied and the volume is large.

harbor which can accommodate any number of ships of any size. There is a large ship-building plant and an immense dry-dock. Millions of pounds of fish, particularly halibut, cod and salmon, are sent from here, and one of the cold storage plants is the largest on the Pacific Coast.

All of the larger cities and towns of Canada have now been mentioned even if

they have not been fully described. The growth of many cities, particularly in the West, has been so rapid, however, that in a few years, it will be necessary to add to the list. Some places which are only towns or even villages now will be flourishing cities in the near future, and many of the cities described will be much larger with new industries.

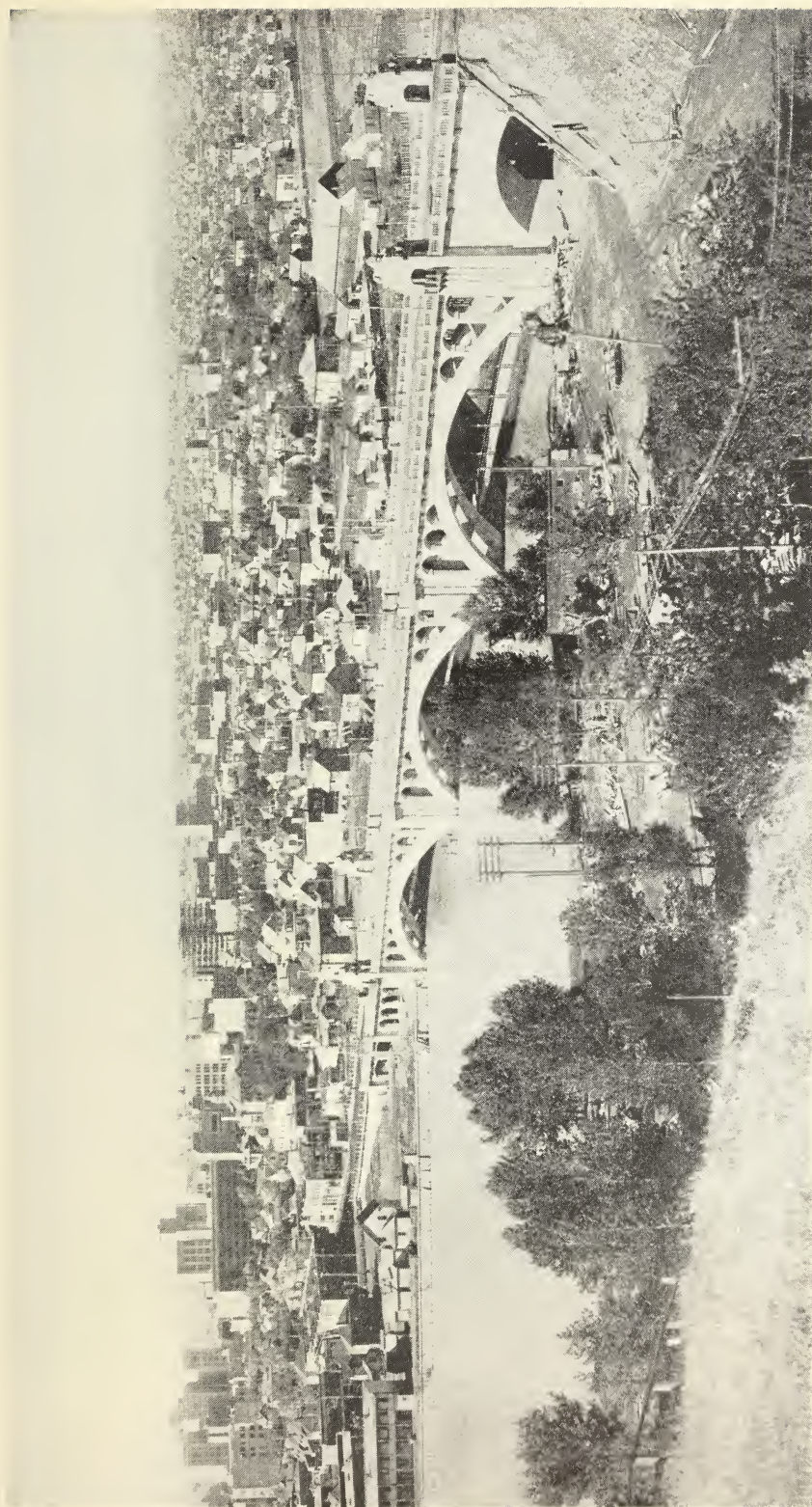


Courtesy Canadian National Railways

## EDMONTON, THE CAPITAL OF ALBERTA, AND THE LEGISLATIVE BUILDINGS

Edmonton, on the Saskatchewan River, is the capital of Alberta, and, in 1926, it and Calgary had almost the same population. It was an important fur-trading post before the Province was formed, and many bales of furs from the north still pass through the new city. There are coal mines and natural gas near by and the industrial possibilities are great.





Courtesy Natural Resources Intelligence Service

#### CALGARY AND THE FINE NEW BRIDGE ACROSS THE BOW RIVER

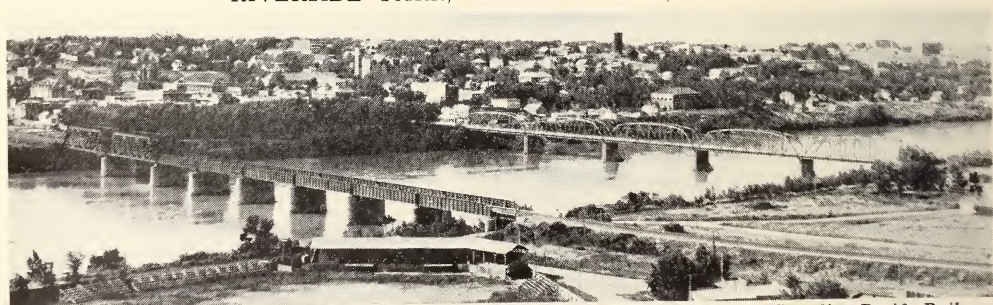
It is hard to realize that the site of such a city as Calgary, now covered with high buildings, comfortable residences and paved streets, was raw prairie hardly fifty years ago. Beautifully situated on the Bow the city has many advantages. Once a "cow country" almost solely, southern

Alberta has taken up general farming, while still raising many horses, cattle and sheep. Some of the manufactories of the city burn natural gas piped from wells a hundred miles distant. The great irrigation dam across the Bow at Bassano is only about eighty miles away.





**RIVERSIDE PARK, MEDICINE HAT, ALBERTA**



Courtesy Canadian Pacific Railway

**MEDICINE HAT SEEN ACROSS THE SOUTH SASKATCHEWAN**

Medicine Hat is a thriving city on the bank of the South Saskatchewan River, about 180 miles east of Calgary. The discovery of natural gas within the city limits gave a great impetus to the growth of manufactures. Riverside Park, shown above, is the pride of the city. In the lower picture it can be seen across the river between the two bridges.



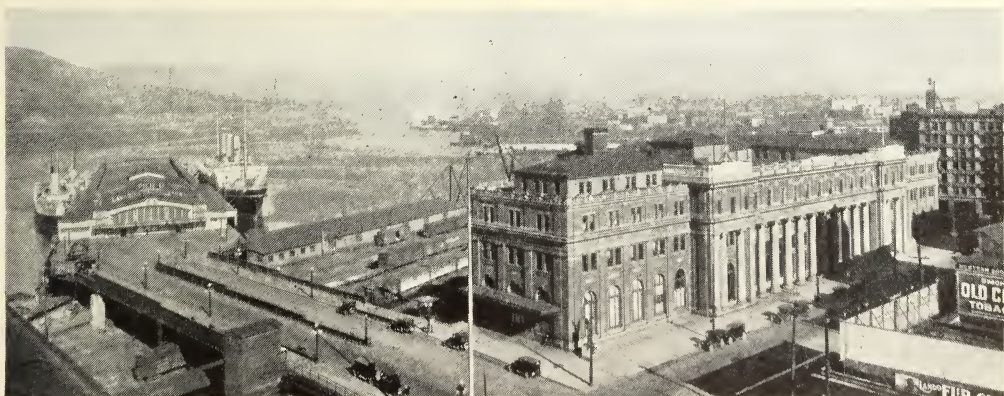


Courtesy Canadian National Railways

**STATION, CANADIAN NATIONAL RAILWAYS, VANCOUVER**



**BUSINESS SECTION OF VANCOUVER, BRITISH COLUMBIA**

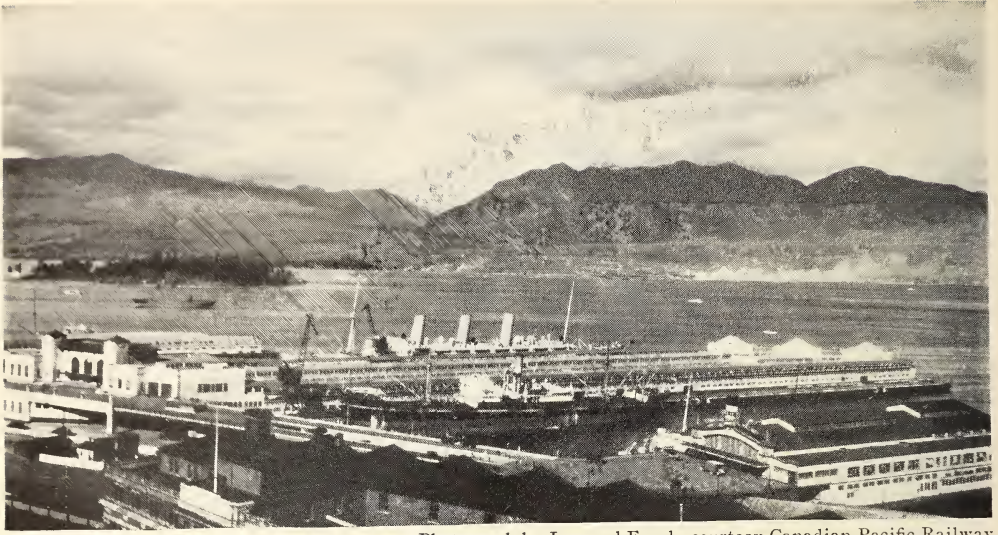


Courtesy Canadian Pacific Railway

**TRAFFIC AND BUSINESS IN VANCOUVER, BRITISH COLUMBIA**

Vancouver, on Burrard Inlet, is Canada's most important port on the Pacific. It was named for Captain George Vancouver, R.N., who explored much of the Pacific Coast. Both of Canada's great railway systems have erected imposing stations. The Canadian National is shown at the top and the Canadian Pacific at the bottom, as is also one of the great piers.





Photograph by Leonard Frank, courtesy Canadian Pacific Railway  
**LINER BOUND FOR THE ORIENT IN HARBOR OF VANCOUVER**



Courtesy Canadian National Railways  
**BIRD'S-EYE VIEW OF VANCOUVER AND PART OF THE HARBOR**

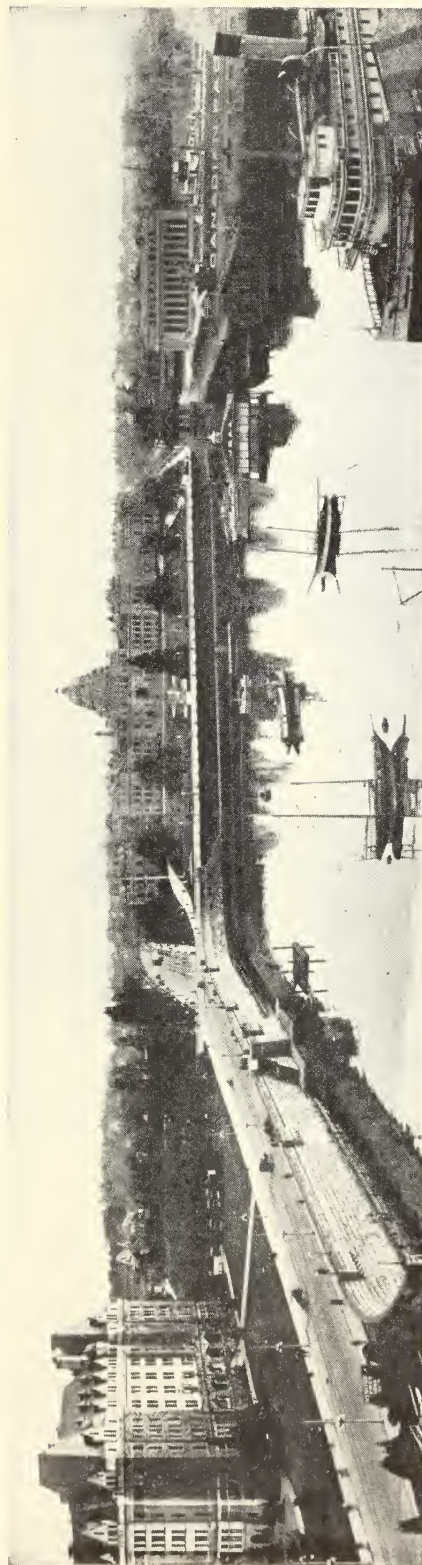
Vancouver is located on a narrow peninsula which is bordered by the waters of Burrard Inlet, English Bay and False Creek. As will be observed, lumber is one of the chief industries. In the foreground are immense rafts of logs which have been floated down to the sawmills. On the banks may be seen the mills and great piles of lumber awaiting transport.





Courtesy Canadian National Railways

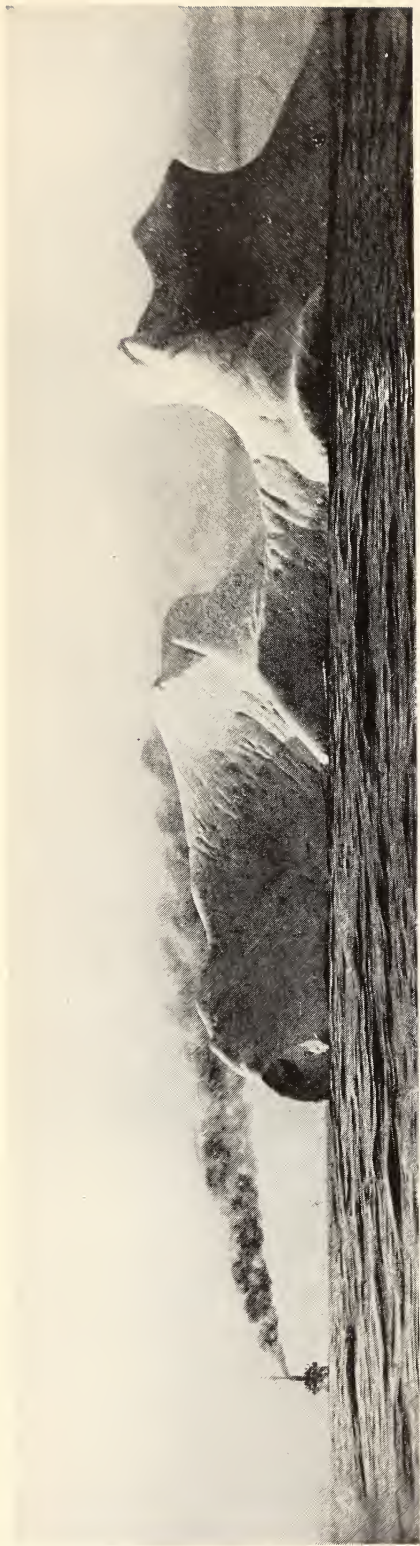
ON THE SANDS AT ENGLISH BAY TO THE WEST OF STANLEY PARK, VANCOUVER



Photograph by F. G. Goodenough, courtesy Victoria & Island Publicity Bureau

THE PARLIAMENT BUILDINGS OF VICTORIA, BRITISH COLUMBIA, SEEN ACROSS THE INNER HARBOR





P. & A. Photograph

A 500,000-TON ICEBERG, LOOMING UP 125 FEET, OFF THE GRAND BANKS OF NEWFOUNDLAND



Haeckel

AN ESKIMO SLEDGE LEAVING NAIN DRAWN BY A TEAM OF HUSKIES, SURE PATHFINDERS OF THE NORTH



# THE DOMINION OF NEWFOUNDLAND

## *Great Britain's Oldest Colony in America*

Newfoundland is not a part of Canada as many seem to think, but a separate self-governing dominion. John Cabot may have landed on the island. At any rate his voyage helped to give Great Britain a claim to North America and soon hardy fishermen were living upon the rocky shores. The population is chiefly engaged in fishing but the manufacture of wood pulp and paper has become a considerable industry which equals or surpasses the value of the dried codfish exported. The mineral wealth is also considerable, iron, coal, copper, gold, silver and lead, though iron is most important.

**N**EARLY four and a half centuries ago on the second of May, 1497, a little vessel of some sixty tons burthen took her departure from the port of Bristol and turned her prow toward the stormy waters of the North Atlantic. On her stern she bore the name, *The Mathew of Bristol*. Her commander, John Cabot, had obtained a patent from Henry VII for the discovery of new lands to the westward and with a crew of eighteen hardy West Country sailors he now embarked. But for the voyage of Cabot, Spain might for long have monopolized discovery in North as well as in South America. For fifty-two days the tiny craft struggled with the waves, but as the sun rose on the morning of the fifty-third day—the twenty-ninth of June—the welcome cry of “Land Ho” rang out from the masthead of the *Mathew*. Cabot gave to the spot where he landed the name of *Prima Vista*, and after spending twelve or fourteen days exploring the coast returned to England to report his discovery. It is uncertain whether this spot is at Bonavista, Newfoundland, on the coast of Labrador, or on Cape Breton. In the Privy Purse of Henry VII appears this curt notice—“August 10, 1497—To Hym that found the New Isle, £10.”

Though Cabot and his English sailors reported the rich fishing-grounds near Newfoundland the people of England were not the first to turn them to account. The French anticipated them. Seven years after Cabot's discovery the fishermen of Brittany and Normandy were fishing on these banks and shores. They

were followed by the fishermen of the Basque Provinces, and by Portuguese and Spanish sailors. Later the fishing became of national importance to England and at least two hundred vessels from the West Country went every year to Newfoundland.

Some of these hardy fishermen remained at the end of the season and made homes for themselves in the new land, and by slow degrees there grew up a resident population on the shores of the island. In the New World the flag of England first waved here and here the first colony was founded, yet both France and England early engaged in the cod fisheries and were from thence drawn to the region of the St. Lawrence. The long wars between England and France during the eighteenth century were avowedly for the fisheries and the territories around them.

At first settlement on the coast was discouraged by the authorities in England through the pressure of powerful fishing merchants anxious to monopolize their harvests but the hardy settler persisted and slowly gained ground. Early rule was by Fishing Admirals. The master of a vessel arriving first in a harbor was appointed admiral for the season and was allowed to take as much of the beach as needed for his own use. By degrees the severe restrictions on settlement were slowly and cautiously removed, and in 1729 Captain Henry Osborne was named the first Governor of Newfoundland.

A long and weary struggle for constitutional freedom and civil rights fol-



## NEWFOUNDLAND, THE ISLAND DOMINION

lowed but representative government was granted in 1832, and responsible government in 1854. To-day the government consists of two houses of Parliament, the lower house or House of Assembly and the upper house, or Legislative Council. The island is divided into thirty-seven districts, thirty-four of which return one member each, while three return two members to the lower house. Election, by secret ballot, is held every four years and every man over twenty-one and every woman over twenty-five has a vote. The twenty-four life-members of the upper house are appointed by the Crown guided by the advice of the government of the day. The Governor-General of the Dominion of Newfoundland is appointed directly from England by the Crown.

It was said of Amsterdam that "its foundations were laid on herring bones." With equal truth it might be said of Newfoundland that its prosperity rests upon a foundation of codfish bones. The cod and other fisheries have long been, and will continue to be, the main industries by which the people earn their daily bread. Cold-water seas are essential to the life of the commercial food-fish, and

the Arctic current which washes the coasts of Labrador and Newfoundland is the source of vast fish wealth; mackerel, hake, haddock, salmon, of the Banks. The fish in turn furnish food for millions of birds.

Cod are taken on the shores of the island, on the Great Banks, and along the coast of Labrador. The Great Banks are submarine plateaus or islands, lying within a day's sail, to the east and southeast of Newfoundland. There are three chief banks: Grand Bank, 600 miles long and 200 miles wide, with a depth varying from 25 to 95 fathoms; the Outer Bank or Flemish Cap and St. Peter's Bank. On the High Seas and therefore subject to the jurisdiction of no one nation, the Banks form a gathering place for many French, Americans, Canadians and Newfoundlanders coming here to fish.

While the bank-fishing is most hazardous the shore-fishing is most profitable. It is carried on from punts and dories with lines and trawls and cod-traps. Though the greatest length of Newfoundland is only about 317 miles and its breadth 316, yet its coastline is so broken with deep splendid bays and



© The Holloway Studio Ltd.

### FERRYLAND ON THE EAST COAST OF NEWFOUNDLAND

Though Ferryland is only a tiny town it is one of the oldest settlements in North America. It was founded as Avalon by Sir George Calvert, later Lord Baltimore, in 1624, and here the deputy of the proprietor held court for the whole island. The village is now the capital of the district of the same name. There is an excellent harbor.





Haeckel

### ST. JOHN'S ON ITS HILL BEYOND THE DEEP-WATER HARBOR

At the crest of the hill upon which stands St. John's, the capital of Newfoundland, the Roman Catholic cathedral of St. John the Baptist is outlined against the sky. About half-way down the slope is the Church of England cathedral. Along the water-front are warehouses and factories for receiving and treating whale and seal oil and cod.

harbors that its total mileage is over 6,000 miles. The area is somewhat larger than that of Ireland. Along the sea-arms live the fishermen in little white cottages, with a schoolhouse here and there, and a church. Everywhere are the fishing "stages" where the fish are landed and split and salted, and then laid out on the "flakes" to dry. Offshore lie the schooners and small boats, implements of the great harvest.

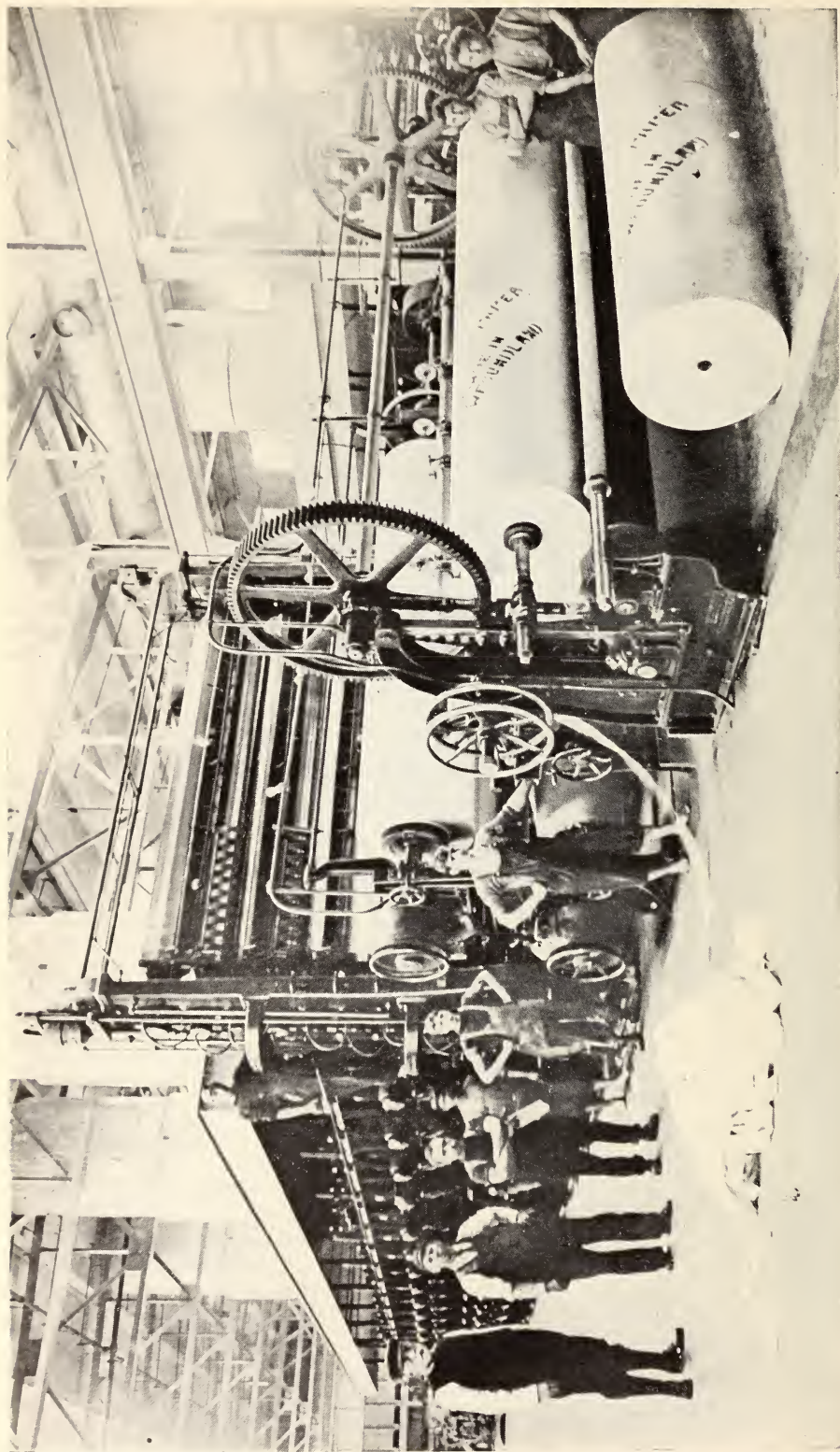
Labrador has a coastline of 1,100 miles. Part of it is under the jurisdiction of Newfoundland and every year in June fishing fleets carrying entire families arrive to fish till October. Dwelling in huts along the shore the women and children are of great assistance in curing the fish.

After the cod the seal fishery is most valuable. This industry is of more recent growth as it was not begun until about 1740. On the floating fields of ice the young seals are born about the end of February. In four or five weeks, so quickly do they mature, the "white coats" are in excellent condition for being taken, both as to skins and the fine oil from their fat. By law no steamer may leave port on a sealing voyage till March 12, and no seal may be killed before the fourteenth. At this time crowds of men come

to St. John's to join the sealing fleet which penetrates the ice-field, depositing small crews here and there on the floes where they find the seal-nurseries. They kill the young animals by hitting them on the head with gaffs; then with sharp knives detach the skin with its adhering fat from the carcass and drag the skins over the ice to the ship. When carried to port at the end of the sealing season the fat is manufactured into oil and the skins salted and exported. These are not the fur seals, but the hair seals, and their skins make valuable leather. Sealing is a profitable occupation which requires only six or seven weeks and leaves men free then to take up the summer fishery or engage in agriculture.

The external rocky ramparts of Newfoundland are broken by deep fjords, with countless branches and numerous islands. In the interior the plateau is traversed by low ranges of hills scored with valleys, woods, lakes, ponds and marshes. Much of it has local pastures, fit grazing-ground for large herds of caribou. Some of the peaks of Long Range, beginning at Cape Ray and running along the western side, are more than two thousand feet high. Nearer to the western coast is the Anguille Range, while the





Newfoundland Government

# THE HUGE MACHINE THAT TURNS A FLUID INTO THE PAPER THAT WE KNOW

When the pulp has been screened it is run into the beaters, where it is mixed, until the fibres that once were wood are ready to become the fibres of paper. The pulp, a thick liquid, then flows into the far end of the machine that we see in this picture. It passes over wire screens and

between rollers which give it firmness and shape by pressing it. Hot cylinders dry the pulp, and it appears at the end of the machine nearest to us, in huge compact rolls all ready for export to the cities where the great newspapers are printed.





Holloway

#### BACK TO HARBOR IN NEWFOUNDLAND WITH A CARGO OF COD

In the Atlantic, extending about 300 miles to the southeast of Newfoundland, are the "Grand Banks," where the water is comparatively shallow and huge numbers of fish swarm there to feed. Many ships go out from the island for the fishing; indeed, the catching, drying and exporting of cod is one of the two most important industries.



"Canada"

#### THOUSANDS OF SEAL PELTS ON THE WHARF AT ST. JOHN'S

The Newfoundlanders regard the time of the annual seal-hunting as the harvest season. They have a proverb which says that "a man will go for seals where gold won't draw him." Seal-hunting may be very profitable. A single steamer has returned from the flocs with a cargo of 41,900 pelts, worth over \$100,000.



Blomidon Range runs along the south shore of the Humber and Bay of Islands. In the Avalon Peninsula hills are everywhere, but lower.

### *Short Rivers and Beautiful Lakes*

Rivers are not long because of the deep in-cutting of the sea-arms. The Exploits, 200 miles in length, drains a densely wooded region in the southwest of the island, and after passing over the picturesque Grand Falls and the cascades of Bishop's Falls, flows into the Bay of Exploits. The Humber with a basin of 2,000 square miles falls into the Bay of Islands, and the Gander flows into Hamilton Sound. Though the rivers are not long, the number of lakes and ponds is very great. Bodies of water lie everywhere—in the mountain gorges and among the low hills. The chief of these lakes are Grand Lake, Red Indian Lake, Gander Lake and Deer Lake. To sportsmen few other countries present greater attractions. Trout are plentiful; wild geese, wild ducks and other fresh-water fowl abound. The willow ptarmigan, the rock ptarmigan, the curlew, the plover, the snipe are found in their season on the great "barrens" or in the marshy grounds. The Arctic hare is met with and the North American hare is abundant. In the interior black bear and wolf are waiting for the adventurous, while beaver and otter play in lonely lakes and ponds.

### *A Healthful Climate*

The climate of Newfoundland is bracing and healthful. The winters are not so extreme as in Nova Scotia and the adjacent mainland. Summers are delightful. The Arctic current exerts a somewhat chilling influence on the east coast; and while the Gulf Stream tempers the climate, it induces fog, though this is confined to the southeastern and southern shores. The rainfall is plentiful, and likewise snow in winter between the months of December and April.

It was long thought that the land was unsuitable for farming, but in recent years more attention has been given to

agriculture and stock-raising. The number of sheep particularly has increased. There is still much fertile land not under cultivation, or in pasture. The inhabitants seem to prefer to follow the sea for a livelihood.

Years ago one of the most famous exports was the Newfoundland dog. This breed probably arose from the crossing of large imported dogs with the smaller native dogs owned by the Indians. Gradually a distinct breed arose which was much prized, and many specimens were exported. It has almost died out on the island but some fine specimens still are bred in Great Britain, Canada and the United States.

### *Products of the Island*

Newfoundland is one of the eleven principal pulp-exporting countries of the world, and one of the twenty-one leading countries in the production of newsprint. Minerals are found in great variety, chiefly iron ore (Belle Isle), coal, asbestos, nickel, silver and lead. The principal cities are St. John's, the capital, on the southeast coast, the oldest British city in North America, Bonavista, Carbonear, Harbor Grace and Grand Falls.

The Labrador Peninsula forms the large eastern division of the mainland of North America, lying between Hudson Bay and the North Atlantic on the east, with Hudson Strait on its northern side. It is larger than the combined areas of Great Britain and Ireland, France, Germany, Belgium and Holland. Of its area about a quarter belongs to Newfoundland and the remainder to Canada. The Labrador, as it is generally known, forms a moderately elevated plateau of Archæan rocks, hilly, interspersed with many lakes and having a surface partly of swamp and bare rock, and partly overspread with boulders and glacial debris, rendering the greater portion of it unfit for cultivation. In three parts of its coastline, ranges of mountains rise directly from the sea. The highest of these follows the Atlantic border and is 760 miles long. Overlooking Hudson Strait along the northern coast stretches a second range for 270 miles,





Publishers Photo Service

#### TYPICAL SCENE ON THE LABRADOR COAST NEAR HOPEDALE

The coast of Labrador is generally bleak and barren, though in the southern part the climate is not severe. There are no real towns and many of the huts are open only in the summer, when the Newfoundlanders come to the coast to fish. The part of Labrador attached to Newfoundland is that part of the peninsula draining into the Atlantic.

and a third mountainous section is that part of the western coast between Cape Jones and Cape Sufferin where the hills rise to a distance of a thousand or two thousand feet within a short distance of the sea. The southern shore from the Saguenay to the Strait of Belle Isle is not high, though in most parts it rises rapidly inland in a succession of rocky hills. Lakes are thickly scattered over the peninsula though there are not any very large fresh-water bodies. A few of the largest are about 100 miles long, Lake Mistassini in the south, Payne Lake in the north, Big Seal Lake and Mishikamau being among the largest. The country abounds in streams and rivers: the Ungava (400 miles), Big River (600 miles), Great Whale, East Main, Ontarde, Manikuagan, the Northwest, Hamilton, and Kenamon are the chief ones. Grand Falls on Hamilton River are superb.

While the southern extremity of Labrador is temperate and pleasant the northern part borders on the Arctic. Owing to the influence of the sea, the cold is tempered but thick ice and snow lie deep in winter. There are copious rains in spring and summer.

The sea around the whole coast of Labrador is well-stocked with numerous species of cetaceans and seals. The walrus in large numbers inhabit the northern coasts and adjacent islands. On the mainland nearly all the fur-bearing animals of Eastern North America are well-represented: the red fox, the cross, the white and the blue, the wolf, wolverine, polar bear and grizzly. The staple sea fishes of the Atlantic Coast are the cod and herring. The haddock does not appear to the north of Belle Isle. Capelin, the food of the cod, are on all the coasts; salmon and trout in all the rivers.





Haeckel

#### ESKIMO GIRL OF LABRADOR

The Eskimos depend largely upon the seal for their clothing. The skins make splendid suits, which are not only light in weight, but also warm and wind-proof.

Population is thin and scattered and made up of Indians, Eskimos and whites. The last-named live on the coasts and in the Hudson's Bay Company posts, and are largely added to in the summer when the fishermen from Newfoundland with their wives and children come for the fish-harvest. The Indians belonging to the Algonkian family and speaking Cree dialects are nomadic. By contact with missionaries they are more or less civilized and generally Christian. The Eskimos of the Atlantic Coast have long been under the guidance of Moravian missionaries and are well-advanced. Eskimos remain on the shore or on the ice, hunting seals and porpoise and walrus, which give them food, clothing and fuel. The Labrador Mission inaugurated in the 'nineties by Dr. Wilfred Grenfell has brought medical and surgical help to these lonely outposts, has substituted co-operative stores for the old vicious system of trucking and started industries to give the people a chance to improve their condition. No recent missionary effort has been more effective or more valuable.

### NEWFOUNDLAND: FACTS AND FIGURES

#### THE COUNTRY

A large island off the eastern coast of the North American continent; it stretches directly across the entrance to the Gulf of St. Lawrence. Area, 42,734 square miles; population in 1927, 263,182.

#### GOVERNMENT

Governor is assisted by an Executive Council (not exceeding 10 members), a Legislative Council (not exceeding 24 members), and an elected House of Assembly (40 representatives). Women were enfranchised in 1925 by an act of the Legislature.

#### COMMERCE AND INDUSTRY

Fishing is the principal occupation; cod, salmon, halibut, lobster, caplin and seal are caught in commercial quantities. Chief agricultural products are hay, potatoes, cabbage, turnips and oats. Number of livestock in 1921, 145,366. Iron, copper and pyrites are mined. Valuable timber resources. Extensive paper and pulp mills. Chief exports: paper and pulp, dried cod, iron ore, cod oil, herring, seal oil and seal skins; chief imports: flour, coal, textiles, machinery, hardware, salt pork and tea.

#### COMMUNICATION

Mileage of government railways in 1926, 905; 47 miles privately owned. Telegraph wire in 1927, 5,200 miles; telephone wire, 2,000 miles.

#### RELIGION AND EDUCATION

Many religious denominations represented; Church of England and Roman Catholic church have greatest number of adherents. Education by church schools, government-aided; there were 1,139 schools in 1926 with 59,088 pupils.

#### CHIEF TOWNS

Population: St. John's (capital), 40,059; Bonavista, 4,052; Harbor Grace, 3,825.

#### LABRADOR

Dependent upon Newfoundland is the eastern part of Labrador Peninsula. The boundary between it and Quebec Labrador, or New Quebec, is the watershed of the rivers flowing into the Atlantic Ocean; the coastal boundaries are Blanc Sablon on the south and Cape Chidley on the north. Estimated area, 111,000 square miles; population, 4,054. Fishing is the chief occupation.



# UNSPOILED WILDERNESS LANDS

## *Canadian National Parks and Reserves*

The Dominion Government, through the National Parks Branch of the Department of the Interior, administers over twenty parks and animal reserves set aside for the purpose of preserving scenery and wild life, together with three historic site reservations. In these areas one may often see the bears and mountain sheep of the Rockies, deer, moose, such fur-bearers as foxes, marten, beavers and fishers, in addition to a great variety of birds; while the lakes and streams abound with trout, pike, bass and other game fish. Fairly recently vast areas of heretofore uninhabited country have been made accessible by rail, motor roads and small water craft. Most of these parks are located in the provinces of Alberta, British Columbia and Saskatchewan and in the Northwest Territories. The scenically beautiful regions thus set aside often lend themselves to winter sports as well as to summer camping and mountaineering. It is a region of unspoiled wilderness visited by vacation-seekers from both Europe and the United States as well as Canada.

THE Dominion of Canada has set aside areas of varying sizes for the use of the people and administers them with a view to preserving the scenic beauties of these regions, their wild life and, in the case of three reservations, sites of historic interest. Most of these national parks and reserves are in the three western provinces. In fact, they are somewhat concentrated in the Rocky Mountain region of British Columbia and Alberta. In Alberta are the two largest, except the range for wood buffalo in the Northwest Territory. These parks are Jasper and Rocky Mountains (popularly called Banff), which are almost one park, with Yoho and Kootenay in British Columbia. Alberta also has Buffalo National Park, near Wainwright; Elk Island, near Edmonton; Nemiskam, near Foremost; Waterton Lakes, near Cardiston and Wawaskesy, near Pancras; while British Columbia, in addition to Yoho and Kootenay, contains Glacier Park, near Glacier, and Mt. Revelstoke, near Revelstoke. The others are somewhat scattered, but there is a list at the end of the chapter.

To return to the interesting group of Rocky Mountain parks, the old fur-traders—dauntless explorers of the fur companies, seeking new lands from which to get furs or seekers of new territory to add to the British Empire—fought their way for half a century across the passes of the Rockies to the Columbia. Alex-

ander Mackenzie was the first of these who made his way to the Pacific, blazing the way for a line of trading-posts. Another outstanding figure was Simon Fraser. Gabriel Franchère succeeded in crossing Athabaska Pass in 1814, and from that date forward the fur brigades of the British companies went jingling twice a year along the Athabaska Trail. Yellowhead Pass, a point on the Great Divide at which the mountains may be crossed at 3,700 feet, became by 1826 a route to the Columbia via the Fraser River. Gold-seekers came to British Columbia after 1860. Finally came the railroad surveyors; and to-day the tourist may speed in twenty-three hours in a sleeping-car from Vancouver to Jasper.

The four parks that lie together along the Rockies—Jasper, Yoho, Kootenay and Rocky Mountains—form an area three-fifths as large as Switzerland; and of these, the largest is Jasper. There are two main approaches to Jasper; on the east from Edmonton up the Athabaska Valley, on the west by Yellowhead Pass and the Miette River. Hundreds of the peaks within park boundaries have neither been named nor climbed. Indeed, the rugged northern portion of Jasper Park is still unexplored save by aeroplanes, which have seen long, shining glaciers and waterfalls that leap into steep black canyons. The ranges lie parallel, wave on wave to the westward, like giant combers;



## UNSPOILED WILDERNESS LANDS

but on the east the mountains rise abruptly from the plains to altitudes of six or seven thousand feet, with long valleys running between them. On the east slope of the Rockies there is little rainfall and the air is electric, but the western slopes are well watered.

Although Jasper has a hundred miles of motor roads, increasing numbers of tourists in hob-nailed boots climb the



Courtesy Canadian National Railways

### THE BASTION IN JASPER PARK

This craggy mass, 9,812 feet high, is one of the ten peaks forming the Ramparts. These mountains, bare of vegetation, are comparatively young, although scarred and ravaged.

trails, perhaps with camp outfits and Swiss Alpine guides, or ride the sure-footed mountain ponies through spruce woods and across flowery meadows to the very foot of the snowfields, putting up at camps established near several points of interest, if they cannot make their hotel by nightfall. One may, in the course of a camping-trip, visit the Columbia Ice Field, where there is a blanket of about 110 square miles of ice to mark the divide from which streams flow in three directions—to Hudson Bay, the Pacific and

the Arctic oceans. Or one may make a trip to Mount Robson, rising to 12,972 feet above a sea of peaks on the park boundary. From Kinney Lake the trail climbs to the Valley of a Thousand Falls, which leap noisily from the melting ice fields of late summer. At Berg Lake, high on the mountainside, we see Berg Glacier hanging blue and clear above the lake and dropping chunks of ice.

Here, as elsewhere when negotiating the high mountains, we must watch for the storms that gather about the peaks and the avalanches that sometimes come shooting down their upper slopes with the roar of a wind of their own creating. Here dwell thousands of wild creatures much as when the first white man came; and the camper with an outdoor appetite will do well to hang his bacon beyond reach of porcupines and to watch his table lest the Canada Jay—known as Whiskey Jack from a corruption of his French name—darts brazenly to steal some tid-bit. Water ouzels build their mossy nests in the very spray of the waterfalls, and osprey catch fish of which eagles often piratically rob them in mid-air. The road from the eastern portal of Jasper Park is often crossed by bears and deer.

Before leaving this park one should follow the foaming Maligne River Canyon and see glacier-fed Maligne Lake, the largest in Jasper, as well as topaz Chrome Lake, opal-tinted Edith Lake and blue Pyramid and Patricia lakes. One should have a glimpse at least of some of the canyons, Ogre, Athabaska, Fiddle Creek or these less well known. Then a last look about as we leave Jasper townsite, to the east at Old Man Mountain (Roche Bonhomme), lying like a sleeping warrior along the Colin Range; north to the reddish rocks of Mount Pyramid, west to the pine-clad Whistlers and pyramidal Mount Fitzwilliam; then to the lovely snow-crowned peak that dominates all the others, Mount Edith Cavell. If the cloud wreaths that often encircle it permit, one may see on its bosom a mammoth glacier said to resemble the outspread wings of an angel.





Courtesy Canadian National Railways

### LOFTY TONQUIN VALLEY WITH ITS RUGGED RAMPARTS

An inviting mountain parkway lifted to a height of 6,450 feet, the valley is dotted with picturesque groups of spruce and balsam. Along the western side of this broad open way in Jasper Park are ranged the weathered battlements of the Ramparts, the highest peak of which, Mount Geikie (10,854 feet), is here shown flanked by the Turret and Barbican peaks.

On its left stands Signal Mountain, from which the fur-traders once watched for the approach of pack-trains from the Pacific.

Yoho National Park has been opened to tourist travel through the completion of the highway known as Kicking Horse Trail. When Sir James Hector, geologist of the Palliser Expedition, after having discovered what we know as Banff, discovered the pass later used by the first transcontinental railway of Canada, his Indians named the river that the trail follows in commemoration of the episode of Dr. Hector's saddle-horse kicking him in the chest. The difficulties of those days are suggested by the fact that one of the pack-horses fell over a 150-foot slope, landed on his back in a tree and finally was brought up astride a great trunk, comically helpless. The building of the motor road was likewise precarious, for logs had to be lowered 1,200 feet by drum and cable; and had a bowlder been dis-

lodged, it might have wrecked a train on the tracks below. The highway resembles a crease gouged in the side of a cliff, and forms one link in a loop of some 275 miles with the Banff-Windermere Highway and the Columbia Highway. The railroad above mentioned, completed in 1885, no longer leads over the pass, for in 1909 a tunnel was opened beneath it; but even so, trains must rise 1,500 feet in the sixteen miles from Field to Lake Louise.

Kootenay National Park was formed by setting aside a strip five miles wide along each side of the road from Vermilion Pass, on the intramontane highway through Banff, to Sinclair Canyon. Thus it preserves the scenery along this first motor road to be constructed through the central Canadian Rockies. It crosses Vermilion Pass, which likewise was discovered by Dr. Hector. It was named for the red oxide (vermilion) made from the red ochre of the region by the Koo-



## UNSPOILED WILDERNESS LANDS

tenay Indians. The park has Radium Hot Springs and a government swimming-pool.

Seasonal motor licenses entitle the tourist to thirty days free camping at any of the recognized camp-sites within Yoho, Kootenay or Rocky Mountains (Banff) National parks. These camp-sites are equipped with shelters, stoves, tables and other conveniences—likewise



Courtesy Commissioner of National Parks  
**MOUNT EDITH CAVELL**

The serene beauty of this mountain, named for the heroic nurse, is here seen superbly mirrored in a rarely lovely green lake of the same name.

It is a centre of interest in Jasper Park.

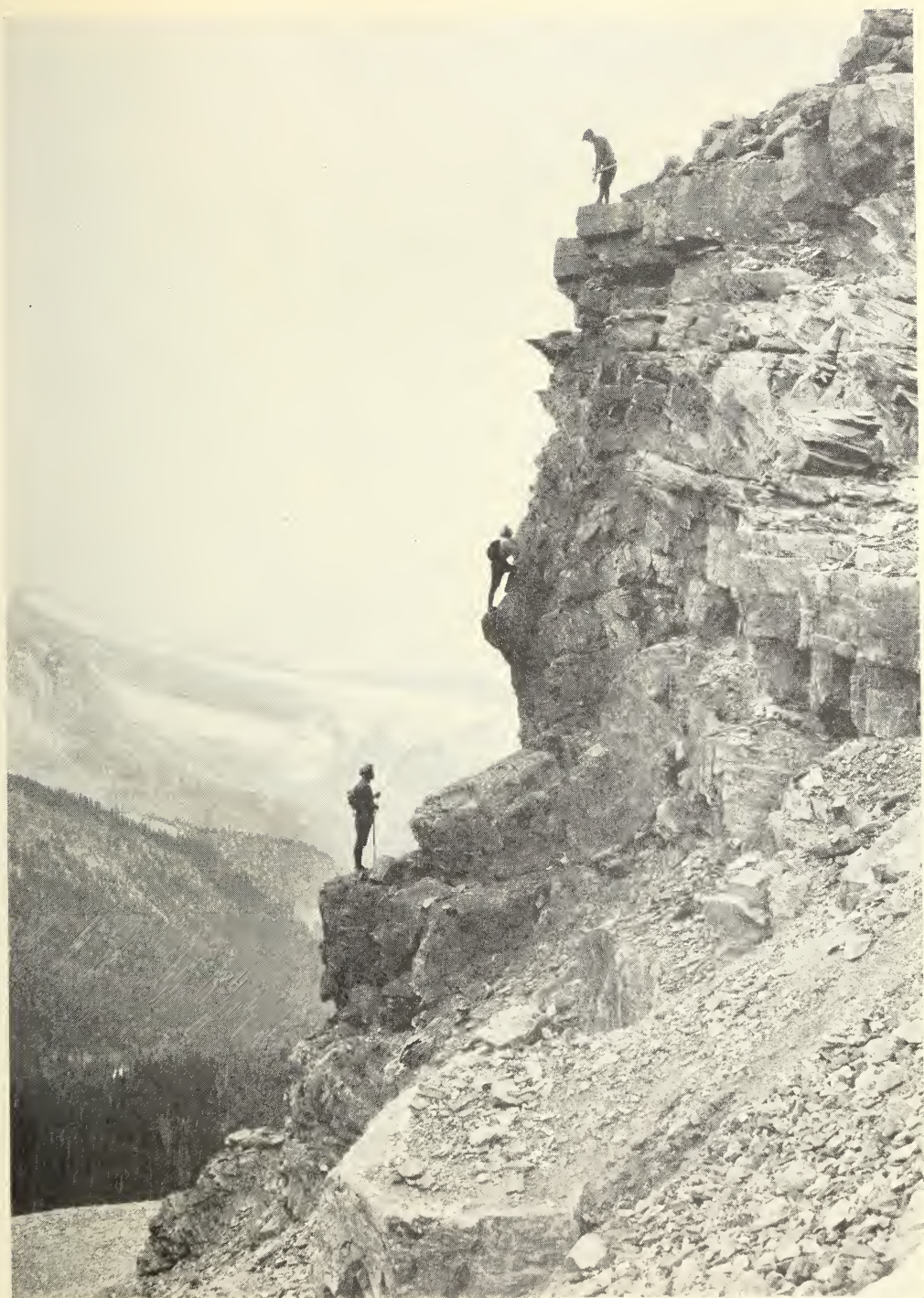
with signs significantly warning the camper not to tease the wild animals!

Banff and Lake Louise are world-famous for their scenic beauty. The first reservation around the hot springs at Banff was made in 1885 with the completion of the first railway across the Rockies. Seventeen years later this Rocky Mountains Park was enlarged to five thousand square miles, but has since been reduced to its present proportions. A party of those early railroad surveyors first investigated when they saw steam

issuing from a hole in the mountainside. Setting up a pole with cross-pieces to make a ladder, they discovered a forty-foot cave arched over a hot pool fed by subterranean springs. Four other radio-active mineral springs were later discovered, and the total flow of the five has been estimated at a million gallons a day. At one of these springs the government has erected a fine public bathhouse.

Every tourist visits perfect little Lake Louise, with its blue depths set against the background of Victoria Glacier. It can be reached by electric car from the railway station named for it. Neighboring Banff, nestled in an amphitheatre of mountains but itself 4,538 feet high, in the green valley of the Bow River, is cool and dry and balsamic. There those inclined may put up at good hotels or cottages or at the government camp-site, and golf among the clouds, inspect the zoo and the museum, attend the Highland Festival or the Indian Day celebration, at which the aborigines parade and dance in costume, or come for winter sports, with the trees dripping icy stalactites and silvered with frost, and the great peaks glittering. The skiing, snow-shoeing, skating, ice-boating and tobogganing come to a climax, in a winter carnival. Nearly two hundred miles of motor roads centre around Banff, while the park contains some seven hundred miles of trails. One should visit Lake Minnewanka (Spirit Water) and fish from a boat at 4,800 feet elevation, and see Castle Mountain, with its high turrets and natural drawbridge, which legend claims as the home of the Chinook Wind—harbinger of spring. Then there are lakes too numerous to mention, the Kananaskis, Hector, O'Hara, Twin and Bow, the latter 6,500 feet toward the clouds. There is Marble Canyon, and the Ghost River Valley where the stream disappears for twelve miles of its way into some nether region. And there are wonderful mountains—four great groups of them in the southern portion of the park alone. Climax of all, there is the towering sharp peak of Mount Assiniboine 11,860 feet high and perhaps 1,500 feet above any of





Courtesy Commissioner of National Parks

#### ALPINE EXERCISE ON BAROMETER PEAK IN YOHO PARK

The roughly chiseled cliffs of the multitudinous rock pinnacles and domes in this magnificent mountain region offer thrilling invitation to those who would scale such heights. Guides from Switzerland have been introduced into Canada's paradise for climbers. The name "Yoho" is purely Western—from an exclamation used by the Indians to express wonder and admiration.





Courtesy Canadian Pacific Railway

### THE TWIN FALLS OF THE YOHO VALLEY

Whether approached by the high trail or the low trail, this pair of leaping, flashing, foaming neighbors is a joy to the traveler who visits their fastness in an ice world that includes Yoho Glacier and several others of importance.

its neighbors. Its base is the permanent headquarters of the Walking Tour Camp of the Alpine Club of Canada, but the climb is a difficult one. The first white men to achieve the summit were Sir James Outram and two Swiss Alpine guides. One at a time, on a rope held taut by the other two, they crawled to the actual tip and peered down a sheer wall to a glacier lying six thousand feet below.

Glacier, another of the mountain parks, is not reached by automobile, but by rail, or by pack-train. Here the Illecillewaet (Indian for "Swift Water") hurries through a green valley. A glacier of the same name makes a spectacular ice-fall against dark fir woods. Falling from a snowfield of the Selkirks, it measures

3,600 feet. Its rate of retreat is shown by marks in red paint along the mountain walls. Its average rate is about thirty-three feet in a year. From Glacier there is a road to Cougar Valley and Nakimu Caves. These caves contain one perpendicular rise of eighty feet, up which a flight of steps has been built. In Cougar Valley the stream suddenly disappears, to emerge about 450 feet farther on, and to disappear twice more in the course of a mile. From its underground channel weird rumbling noises sound in the caves, of which there are over a mile, some of them incrustated with pale pink limestone cauliflowerers. Glacier Park is a favorite with Alpine climbers.

Mount Revelstoke National Park, seemingly at the top of the world, is the scene of an annual ski-jumping contest at which the world's record has been closely approached.

Jumps of 235 feet have been made, though not without a fall or a touch of the hands to mar their perfection. There is a fourteen-mile drive from the mountain hamlet of Revel-

stoke in which the road, formally opened in 1927 by the Prince of Wales, zigzags through virgin forest or along a rock ledge up the face of Mount Revelstoke, ascending 4,515 feet. This drive gives one a panoramic view of the valleys of the upper Columbia and the Illecillewaet, the Clach-na-Coodin Ice-field, Lake Eva and Lake Millar, and of Summit Lake gleaming at the top of Eagle Pass. In the high meadows, one may catch glimpses of caribou and wade to one's knees in wild flowers. Around sundown the snow crowns of the Selkirks and their attendant cloud-wraiths light up with a rose alpenglow.

The new Prince Albert Park, in northern Saskatchewan, with its thousands of



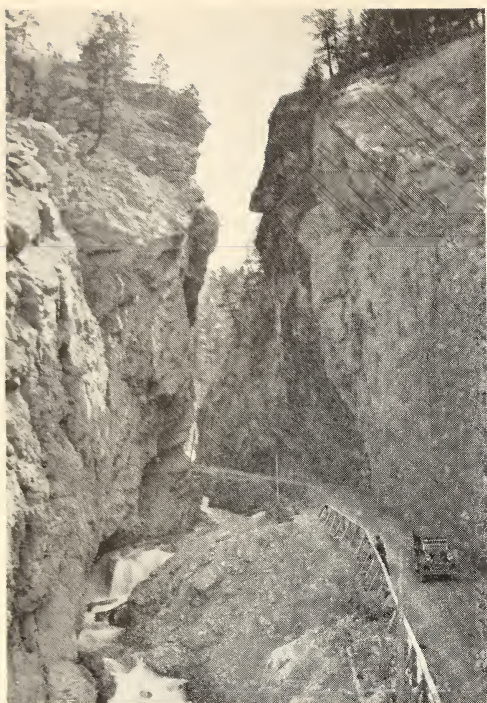


Courtesy Commissioner of National Parks

#### WHERE LAKE O'HARA OPENS A VISTA TO MOUNT CATHEDRAL

A little lake, less than a mile in length, shining blue in color like a precious gem and like a gem in a setting that is worthy of its transcendent beauty—what wonder that Lake O'Hara has won high praise from artists of world-wide travel? Its altitude is 6,664 feet, and Mount Cathedral, beyond, rises to an elevation of 10,454 feet. They are in Yoho Park.





SINCLAIR CANYON



Courtesy Commissioner of National Parks  
MARBLE CANYON

KOOTENAY PARK



Courtesy Canadian Pacific Railway

#### PACK-TRAIN FORDING THE KOOTENAY RIVER NEAR WINDERMERE

Sinclair Canyon, or Parson's Gap, is the impressive western portal of the Banff-Windermere highway, which winds through Kootenay Park, beside the Vermilion and Kootenay rivers. Marble Canyon, one of the most beautiful in the park, has sheer walls of gray limestone, with strata of white and gray-toned marble that show where the stream has cut down through the rock.





Courtesy Commissioner of National Parks

### THE GIANT'S STEPS IN PARADISE VALLEY

Paradise Valley is a lovely stretch of open country, about six miles long, between the Valley of the Ten Peaks and Lake Louise in Rocky Mountains Park. From Horseshoe Glacier, sweeping across at its head, clear streams flow down and come together to form Wastach brook, which, midway of the valley, drops in a series of graceful cascades over a giant's stairway of rock.





Courtesy Commissioner of National Parks

### A ROCKY MOUNTAIN RAM

Even about the motor highways of Banff Park the Bighorn or Rocky Mountain sheep can be viewed at close range, so tame has this keen-eyed "chamois of the American West" become.

shining lakes and connecting streams, is a paradise for canoeists during its brief summer warmth. One can make a circular canoe trip of close to a hundred miles, with a few short portages, where canoe and duffle must be carried along a

trail often but two hundred yards in length and soft with pine needles beneath one's moccasins. One paddles through tunnels of fragrant jackpines, white birches and white spruces which grow down to the margins of little beaches of white sand. In the chill waters, gray trout leap, moose swim across the lakes at twilight and deer step daintily into their margins to drink. Game birds nest beneath the saplings, pelicans and cormorants fish, and bears, looking like black stumps, forage in the berry patches. Prince Albert Park, formally opened in 1928, is less than six hundred miles drive from Winnipeg. On Waskesiu Lake in the northern portion of the park, a crystal stretch of twenty miles, a fine campground site has been laid out. Kingsmere Lake is among the more significant of these northern waters. This region was once the hunting ground of the Cree Indians, and to this day they leave votive offerings—a pipeful of tobacco, perhaps, or an eagle's feather—on "Old Man Rock" in Waskesiu River, believed to be the special habitation of Wee-sa-ka-chack, a divinity possessed of the power to assume any form he chooses.



Photograph by Byron Harmon

### CASTLE MOUNTAIN AS SEEN FROM VERMILION SUMMIT

Halfway between Banff and Lake Louise in Rocky Mountains National Park is this titanic fortress, with a foundation over eleven miles long and walls towering a mile above the base. To the east of it, the strata of limestone forming the mountains are almost turned on end; westward, they lie horizontally, giving the summits a more domelike shape.





Courtesy Department of Immigration and Colonization

#### LAKE LOUISE, WHERE BEAUTY SMILES ETERNALLY

Ages ago a glacier hollowed a deep basin where now in a "hanging" valley rests one of the most exquisite little lakes in all the world. Over its cold waters play in infinite variety the hues that shimmer on the dragon-fly's wing and in the peacock's tail, with that nameless blue that arises only from a glacier's heart.





Photograph by Herbert T. Cowling

### BLACKFEET CAMP ON TWO MEDICINE LAKE

This region, in Glacier Park, has long been a favored camping ground in summer for the Blackfoot Indians. At one time, tradition says, two factions built separate "Medicine lodges," and from that has come the name of the lake.

Waterton Lakes is the last national park in the high mountains. Scenically, it is one with the United States Glacier Park just over the International Boundary. Indeed, the big Waterton Lake lies in both. Of all the splendid reservations set aside by Canada, none is lovelier than this combination of gleaming snow peaks, with their rivers of ice and their vivid blue lakes set four thousand feet high beneath slopes of gray limestone curiously banded with red. The park begins at the crest of the Great Divide on the west and descends the wooded slopes of the Rockies to the rolling foothills of Alberta. The lake was named for an English naturalist and pioneer in wildlife conservation. The first white set-

tler, John George Brown, an Oxford man, came here in 1865 and eventually became park superintendent. The neighboring Blackfoot Indians are often seen about the park. The tourist will find fully 150 miles of trails as well as launch routes which make it easy to explore in all directions.

The first of the Canadian animal reserves was Elk Island Park, to which one may drive from Edmonton. Originally (in 1906) designed for elk, and now containing moose and deer as well, it later added a buffalo herd. It has also become a sanctuary for game birds and waterfowl. This enclosure of fifty-one square miles still contains about eight hundred buffalo; but in 1908 a larger area was set aside near Wainwright to which most of the first buffalo were transferred. These great beasts, originally brought from Banff and Montana, were survivors of the tens of thousands that had roamed the plains of North America for many centuries and had been in serious danger of complete extermination. Their numbers have now in-

creased to four thousand. Here in the rolling prairies of Alberta, sleek brown herds may be seen from the windows of the transcontinental trains as they graze on the sere long grasses, the little yellow calves hiding behind their mothers; and in autumn the shaggy-maned bulls paw up clouds of dust as they fight for leadership, bellowing resoundingly. Buffalo Park contains, besides these beasts, numbers of yaks, elk, mule-deer, antelopes, moose, cattle and cattalos—a cross between buffalo and cattle. A high wire fence and, outside it, a plowed fire-guard protect the wild denizens of both Buffalo and Elk Island parks. Since their numbers have become so large, some are sold to a packing company, and others are annually





Courtesy Commissioner of National Parks

#### A GESTURE TO THE UNIVERSE FROM THE SIDE OF MOUNT ABBOTT

In Glacier Park are many reminders of the Alps, in its forests, its wild-flower gardens and the lure of its rocky mountain tops. For those who seek adventure or who wish to study glacier formations it holds strong attractions. Near the top of Mount Abbott (8,081 feet) is an Overlook which gives a fine view of Illecillewaet Glacier.





Courtesy Commissioner of National Parks

**MOUNT ROBSON, CHIEF OF THE CANADIAN ROCKIES, AND BERG LAKE**



Courtesy Canadian National Railways

**BERG LAKE AT THE FOOT OF TUMBLING GLACIER, MOUNT ROBSON**

Mount Robson, in Jasper Park, the highest of the Canadian Rockies, is 12,927 feet from base to summit. On three of its sides hang glaciers that end in the waters of blue lakes and drop off, from time to time, great blocks of ice that float about like small icebergs. Here we see the foot of Berg, or Tumbling, Glacier.





ON THE TOP OF VIMY MOUNTAIN, LOOKING TOWARD AKAMINA PASS



Courtesy Commissioner of National Parks

#### HELL ROARING CANYON VIEWED FROM VIMY MOUNTAIN

One of the best observation points for enjoying the beautiful panorama of Waterton Lakes Park in the Land of Shining Mountains is Vimy Peak, the summit of which is reached by a good trail. Hell Roaring Canyon was so named by its discoverer because of a brook which rushes and roars through a spectacular gorge with great sound and fury.





Courtesy Commissioner of National Parks

### SANCTUARY LAKE IN PRINCE ALBERT NATIONAL PARK

A network of clear, shining lakes, tied together by countless small rivers and brooks, characterizes this restful retreat and playground in northern Saskatchewan. The delicate loveliness of white birches, set over against the deeper tones of pine trees and reflected in the shimmering surface of the placid lake, adds charm to this typical scene.

shipped to their winter feeding-grounds.

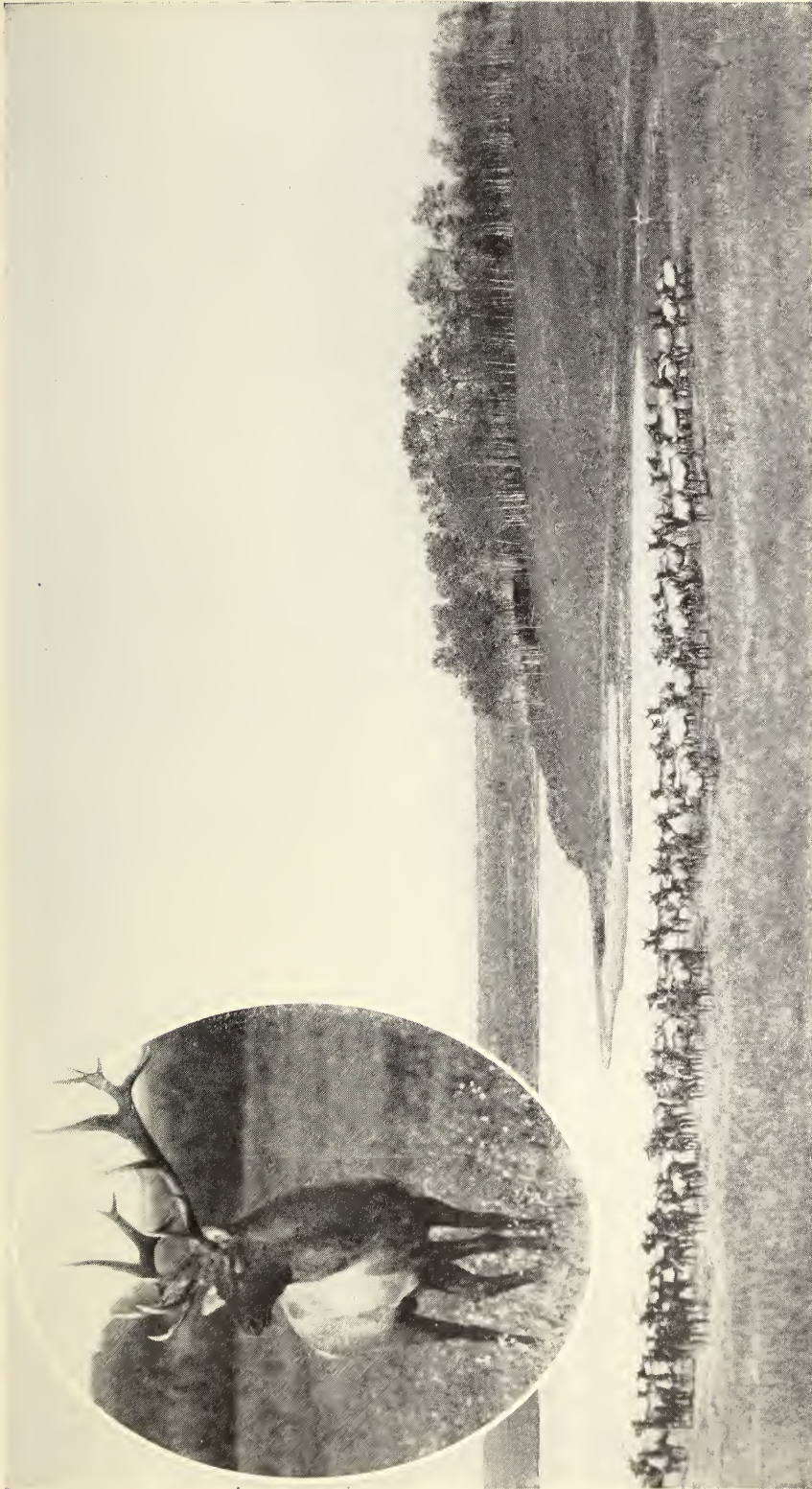
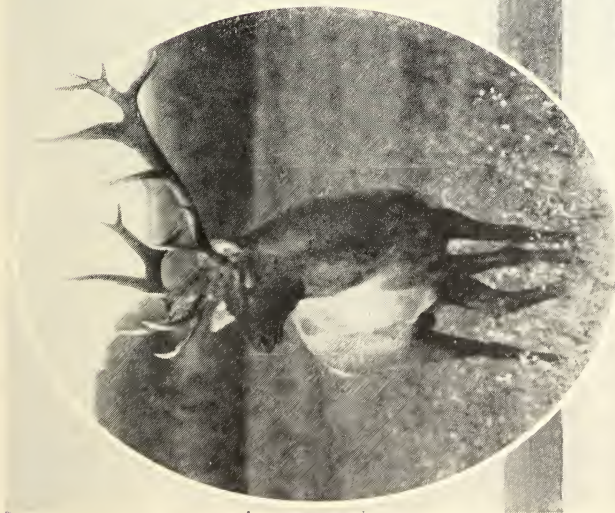
This brings us to Wood Buffalo Park, a huge tract of 17,300 square miles in the Northwest Territories south of Fort Smith. Up there, not far from the Great Slave Lake (Athapuscow), where the talk is of fur-trading and the winter mode of transportation is by sleigh and dogsled, where one meets Indian trappers and mounted police, a park was set aside in 1922 as the only known habitat of the wood bison once thought to have been exterminated. When plains buffalo are sent north in June and July they are first herded to the rails at Edmonton and later transferred from cattle-cars to barges which float them down the Athabasca River to a point near Fort Smith.

There are several other national parks. Nemiskam, near Foremost, Wawaskesy, near Pancras—both in Alberta—and Me-

nissiwok in Saskatchewan are antelope reserves. St. Lawrence Island, near Brockville, Ontario, and Vidol's Point, Lake Katepwa, Saskatchewan, are recreational areas, Point Pelee, Leamington, Ontario, the most southerly point in Canada is a bird sanctuary, while Fort Pelly and Little Manitou Lake in Saskatchewan are a health resort. There are three historic site reservations; Fort Howe and Fort Beauséjour at St. John, New Brunswick, and Fort Anne at Annapolis Royal. The reservation of several other historic sites is under consideration.

Besides these national parks, several of the provinces have set aside parks or reserves—Algonquin Park and Quetico Park in Ontario are quite as important as some of the national parks; and Mt. Assiniboine Park in British Columbia is well worth a visit, to mention only a few.





Courtesy Commissioner of National Parks

### SOME OF THE ELK IN THE SANCTUARY OF BUFFALO NATIONAL PARK IN STATUESQUE POSES

Elk Island National Park, the first animal reserve established in Canada, now second in size only to the Buffalo Reserve at Wainwright, was set apart in 1906 for the preservation of the fast disappearing wapiti or elk, the moose and the black-tailed deer. In 1920, one hundred elk from the

Yellowstone herd in the United States were shipped to Jasper Park and set at large. These, scattering in small bands, have attracted members of the surviving native herds, and now in the security of protected areas these animals are becoming numerous and losing their fear.





**YAK AT HOME IN BUFFALO NATIONAL PARK, WAINWRIGHT**



**BLACK BEAR AND CUB IN JASPER PARK**



Courtesy Commissioner of National Parks

**BUFFALO ON A RANGE IN BANFF PARK**

The national parks have become sanctuaries of wild life, and, while certain areas are especially devoted to herds of particular animals, the numbers of all kinds of game tend to increase in all the reserves. The largest government herd of buffalo (that beast once invaluable to the pioneers of the plains) is in Buffalo National Park, Wainwright.





ANTELOPE AT WAINWRIGHT



A DEER IN VELVET



ONE OF THE MOOSE IN BUFFALO NATIONAL PARK

Courtesy Commissioner of National Parks

Although the antelope have their own special reserves at Nemiskam and Wawaskey, they are found in other regions as well. The deer shown above, one of the many that range over the parks, has a crown of new antlers which have not yet lost their covering of skin, the velvet.

Moose, although lovers of the swamps, are increasing in several mountain park areas.



## UNSPOILED WILDERNESS LANDS

### CANADIAN NATIONAL PARKS AND RESERVES: FACTS AND FIGURES

#### PARKS AND GAME RESERVES

Rocky Mountains National Park (Banff), created in 1885, is located at Banff, Alberta, on the east slope of the Rockies, and has an area of 3,834.5 square miles; Yoho Park, 1885, British Columbia, west slope of Rockies, 476; Glacier Park, 1886, British Columbia, summit of Selkirks, 468; Waterton Lakes Park, 1895, near Cardiston, southern Alberta, adjoining U. S. Glacier Park, 220 square miles; St. Lawrence Island, 1904, Ontario, about 140 acres; Jasper Park, 1907, northern Alberta, 4,521 square miles; Buffalo Park, 1908, near Wainwright, Alberta, 197.5; Elk Island Park, 1906, near Edmonton, Alberta, 51; Revelstoke Park, 1914, British Columbia, 100; Point Pelee Park, 1918, Leamington, Ontario, 4; Kootenay Park, 1920, British Columbia, 587 square miles; Vidal's Point, 1921, Lake Katepwa, Saskatchewan, 17.2; Wawaskesy (Antelope Reserve), 1922, near Pancras, Alberta, 54; Menisiiwok (Antelope Reserve), 1922, near Maple Creek, Saskatchewan, 17; Wood Buffalo, Fort Smith, 1922, Northern Territories, 17,300; Nemiskam Park (Antelope Reserve), 1922, near Foremost, reserved by order of the Minister, southern Alberta, 8.5; Prince Albert, 1927, near Prince

Albert, Saskatchewan, 1,869; Fort Pelly and Little Manito Lake reserves, Saskatchewan; Tar Sand Reserve, Alberta, reserved by order of the Minister.

#### HISTORIC SITE RESERVATIONS

Fort Howe, created in 1914, St. John, New Brunswick, 19 acres; Fort Anne, 1917, Annapolis Royal, Nova Scotia, 31 acres; Fort Beauséjour, 1926, New Brunswick, 72 acres.



Courtesy Commissioner of National Parks

#### BESIDE THE STILL WATERS IN PRINCE ALBERT PARK

King's Island, above, is set in the waters of Waskesiu Lake. Below is Louis Lavallée, an old trapper and canoe builder, beside Lavallée or Pelican Lake, haunt of pelicans and cormorants.



# INTERDEPENDENCE AND THE LEAGUE OF NATIONS

## INTRODUCTION

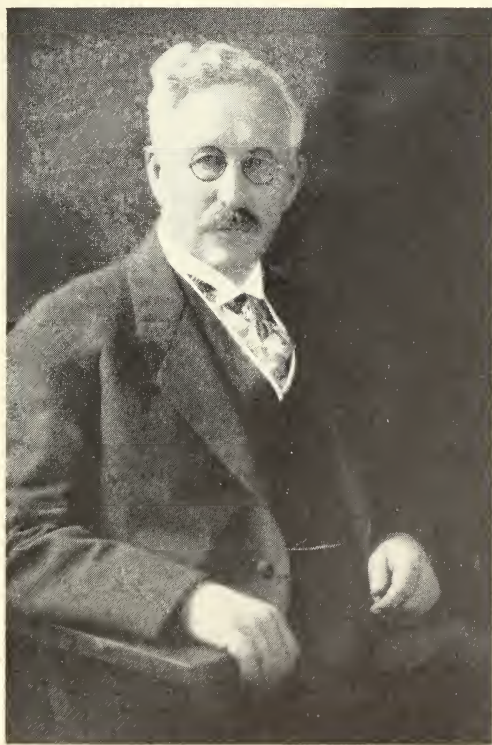
THE following chapter by Mr. Graham Spry states so well the principles upon which the League of Nations is founded, the form and purpose of its organization and the work which it has accomplished, that it seems hardly necessary for me to do more than commend it to the readers of *Lands and Peoples*. I would like, however, for the purpose of emphasis, to call attention to certain facts mentioned by Mr. Spry, which, from the point of view of those living under democratic institutions, are of special significance.

In the first place, the League is a democratic institution introducing into international affairs the principles of democratic government, there being representation of all member nations, great and small. It aims to present to the public opinion of the world the causes of difficulties between nations, so that full public discussion may take place before any action leading to war is possible. It substitutes for secret diplomacy open discussion, and seeks through the Court of International Justice to secure fair and reasonable settlements by process of law. In all this it but imitates the internal structure of the modern democratic state. The

methods employed are methods thoroughly familiar to the people of every civilized country. It is a new departure in organization, but not in ideal.

In the second place, it cannot be over-emphasized that the League seeks to substitute world co-operation among the nations for the old idea of world power, of which we heard so much a generation ago. The solemn pledge taken by the leading nations of the world under the Briand-Kellogg Pact, never again to make war an instrument of national policy, is a momentous step in this direction. We are slowly, but surely, learning—and in this the League is our greatest teacher—that

as between individuals, so between nations, the good of one must ultimately be the good of all, and that international banditry is just as reprehensible as individual banditry. As order and progress, in the best sense of the word, are impossible within a nation until its social structure rests upon a foundation of law based on justice, so order and progress in the world as a whole must have a similar basis. To find that basis, to express it in the form of international law, and to make it operative through a Court of International Justice is the League's greatest task.



H. M. TORY, D.Sc., LL.D., F.R.S.C.  
President, The League of Nations Society in  
Canada.



## INTERDEPENDENCE AND THE LEAGUE OF NATIONS

Finally, I would emphasize the fact that this change of ideal means a necessary change in the outlook, not only of the statesmen and politicians, but of the ordinary man. In the past, war has been regarded as the normal way of settling major difficulties as between nations. The moment substantial differences of interest arose, the threat of war was regarded as the proper means of securing a desired end. Henceforth, war is to be considered abnormal. The educational work of the League carried on through the political organization at Geneva and through the civil organizations of the League of Nations Societies in the member countries aims to substitute for the old war psychology confidence in a settlement based on reason and justice and to make that conception the normal view of the

ordinary citizen. This is not a new idea—it has been dreamed of by the prophets and seers of all the ages—it is the fundamental idea in the teaching of the greatest of all teachers, the Man of Nazareth. The spiritual hope of the best minds of the ages is crystallized in the League. Ten years of experience with it has surely justified the observation made by General Smuts that humanity is again on the march. Quite apart from humanitarian motives, it is surely clear to all thinking men that no economic advantage compensating for the losses produced by war could possibly accrue to a nation. It does not seem possible that we could ever again resort to the destructive methods of settling disputes that preceded the formation of the League of Nations.

H. M. TORY.



THE CANADIAN DELEGATION, 1928

The group is in front of the *Salle de la Reformation* where the Assembly meets. From left to right: Dr. O. D. Skelton, Under-Secretary of State for External Affairs, Canada; the Hon. Philippe Roy, Canadian Minister to France; Senator the Hon. Raoul Dandurand, former President of the Assembly; the Rt. Hon. W. L. Mackenzie King, C.M.G., M.P., Prime Minister of Canada, and Secretary of State for External Affairs; the Hon. Charles A. Dunning, M.P., then Minister of Railways and Canals, Canada; Dr. W. A. Riddell, Advisory Officer to the League.



# INTERDEPENDENCE AND THE LEAGUE OF NATIONS

By *Graham Spry, B.A.*

The changed position of Canada, both in the Empire and in the world at large, is nowhere more clearly shown than by her membership in the League and by the prominent position accorded her in its deliberations. Canada has been represented in the Council of the League and also in the governing body of the International Labour Office, one of its most important divisions. The League has accomplished much during the short period of its existence, and the hopes for even greater success in the future seem bright. The story of the League presented below was written by one who has had actual experience in the administration of one of the important divisions.

THE League of Nations is a permanent association of self-governing states for two main purposes, the maintenance of peace and the free co-operation of the members in the settlement of any international problem. To maintain peace means to prevent war, to provide substitutes for war, to ensure some measure of security against attacks by one nation on another, to limit and control armaments and to remove causes of disputes. The League of Nations attempts to provide a mechanism for meeting all these needs.

This first object, peace, is the essential object, the immediate object; and Viscount Grey, Mr. Lloyd George, M. Briand and Herr Stresemann have said that if such a mechanism had existed to bring the nations together in 1914, there might have been no Great War. But, if this is the first purpose of the League, the second purpose, the provision of a complete system of national intercourse, is not less important, and its importance will steadily increase. Nations are in constant relation with one another. Trade, finance, science, thought are increasingly international. The commercial policies of one country, its health policies, its standards of living, its hours of labour, its tariff schedules, influence other countries; and, until there was a League of Nations, there was no international governmental mechanism by which these relations might be properly discussed and organized. How, for example, could the

spread of an influenza epidemic throughout the world be studied? One government could not study an epidemic that affected all countries; such a step would have meant intervention in other countries. Nor could individuals, without the resources of governments, accomplish such work.

The League of Nations, however, an international organization, may ask the co-operation of all governments. The principle of this work is applied by the League of Nations to a rapidly increasing number of world problems. The League, in fact, is not only an association that is negative, that attempts to do away with war, but it is also an association that has great positive work to do; and one of the framers of the Covenant of the League, General Smuts, has described the League as "a great organ of the ordinary peaceful life of civilization."

To say that the League of Nations is an association is not to imply that it is a super-state. It is not so much a "form of government" as a "form of co-operation." The League has no power to interfere in the internal affairs of a member-state. Fundamentally, the League is a permanent method of conference with a permanent secretariat and a series of obligations which each nation assumes on becoming a member. The League accomplishes its work not by enacting laws as the Parliament of Canada enacts laws for the Canadian people, but by bringing the representatives of the nations together to





Keystone Photograph

### WOODROW WILSON

The prophet and one of the founders of the League of Nations.

discuss common problems and to seek by study and investigation a settlement of those problems which each national government, in response to public opinion, will carry into practice.

In some respects, the British Commonwealth of Nations, by which is meant the self-governing nations under the British Crown, was a model for the men who planned the League at the end of the war; and an understanding of the Commonwealth is an aid to understanding the constitution of the League. Sir Robert Borden, indeed, once said that the Commonwealth was "a very good exemplar of what the world-wide League of Nations may be." The British Commonwealth of to-day is based upon, first, the freedom of each self-governing nation; second, the free co-operation of each of these nations in the settlement of common problems; third, the use of the methods of conference, consultation, and judicial

settlement; and fourth, the settlement thus arrived at is carried into practice in each nation, not by laws enacted at an Imperial conference or by any one government, but by each national government, insofar as that government, responsible to the people of that nation, may desire to do so.

The member-states of the League, likewise, are free self-governing states. They settle common problems by conferences, followed by executive action by each government. The League, also, has a Court, the Permanent Court of International Justice, to deal with judicial questions. The League, too, like the Empire, exists, not merely because of covenants and treaties, but primarily because of what the people of each country think and feel. To Canadians, this principle of free co-operation of nations within a wider unity, exemplified both in the modern Commonwealth and the existing League is of peculiar interest, for the principle underlying the relationship of nation to nation in the Commonwealth was very largely the result of Canadian experience and Canadian statesmanship.

There have been, during the last five hundred years, many proposals for systems of international government; but the League of Nations is the creation, not of any individual, but of the forces which have been changing government and trade and industry during the last century and a half, or more. The war very clearly revealed those forces; and humanity, torn with suffering, was ready to embark upon the experiment of a League of Nations.

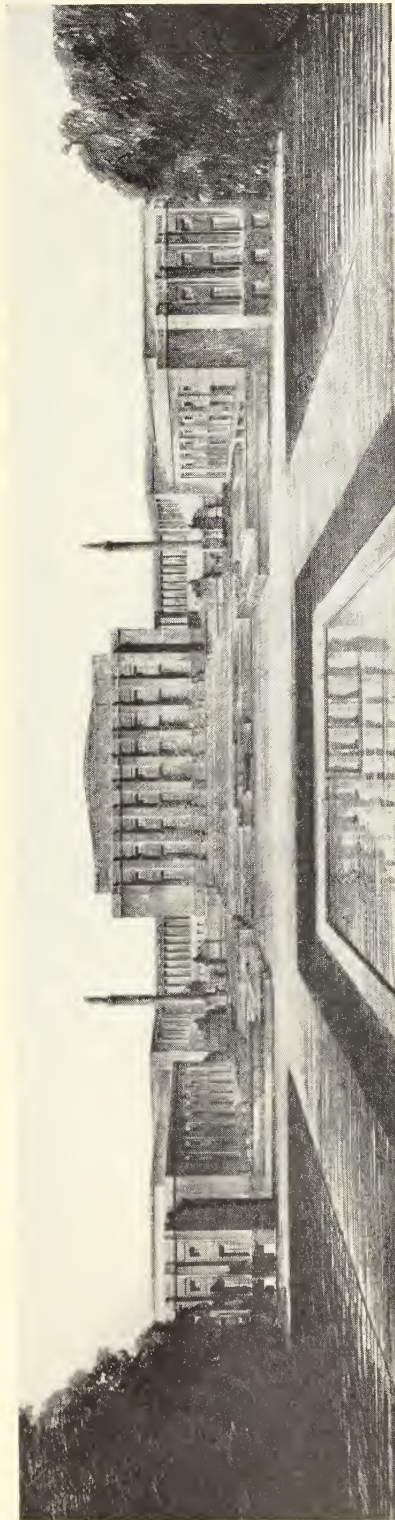
Four great forces, at least, made humanity at once capable and willing to make this experiment. There was, first, the universal demand for some new organization to prevent war, and to find methods of peacefully settling disputes. This impulse was expressed in President Wilson's fourteenth point, providing that "a general association of nations must be formed under specific covenants for the purpose of affording mutual guarantees of political independence and the territorial integrity of great and small states alike." Those words expressed the vague,



but real, aspiration of the world. The Covenant of the League attempted to realize it.

The war was, in effect, the mother of this new world organization for peace. But, without three other experiences, the world might not have been ready for the League of Nations. The two greatest of these experiences, these forces, were what Arnold Toynbee calls "the Industrial Revolution" and the "Nationality Movement." The third was the growth of international conferences and agreements, most of them non-political, between groups of nations or between all nations, such as Postal agreements.

During the nineteenth century and before, there came into being new states under the influence of two ideas, Democracy, or representative self-government, and Nationality, or the unity under one government of groups of people with a common attachment to a particular soil or race. Thus, in France, the French Revolution resulted eventually in the disappearance of the monarchy, and the establishment of a parliamentary form of government of Frenchmen for Frenchmen, by Frenchmen. In Italy, the movement took the form of a rising against the government by Austria and a union of Italian states under a constitutional monarchy. In Germany, the movement took the form of federation of states under a Prussian monarch. In South America, Spanish rule was overthrown; and throughout the British Empire, wherever people of the British race constituted an important group, the feeling of loyalty to the soil and the desire for self-government found expression, first, in the American colonies, where a revolution produced the United States of America, and, later, in Canada, Australia, South Africa, where constitutional changes produced self-governing nations under the British Crown. The Peace Conference at Versailles was composed, therefore, of a far different type of state than that which was represented at the Congress of Vienna a century before. The Holy Alliance, an experiment in internationalism, was an alliance of monarchs, not of



THE NEW "PALAIS DES NATIONS" AT GENEVA

Here the Assemblies, Council and Committee meetings will be held and the Secretariat, the "international civil service," will work. All of the fifty-five member states are contributing to the cost of construction.





Photograph by F. H. Jullien

### COUNCIL OF THE LEAGUE OF NATIONS, 1926

Among those seated are Dr. Stresemann, Signor Sciolaja, M. Briand, Sir Eric Drummond (Secretary-General), Sir Austen Chamberlain, and Dr. Unden.

peoples, and it collapsed. The League, which was born of the Peace Conference, is an association of peoples. It is a creation of public feeling, and is based primarily upon popular will. The world of 1918 was far more adapted to experiments in world government than the world of 1815. It was a world wherein a League of Nations was practicable.

The Industrial Revolution was equally creating a world wherein a League of Nations was practicable. Beginning in England, there were, during the last 150 to 200 years, a series of vital changes in industry, commerce, finance and communication. Steam power was harnessed. Machines replaced the hand in manufacturing. Goods were made in factories instead of in homes, and they were transported, not by horses to the nearest market, but by steam trains, and steam boats, to the farthest corners of the globe. Countries bought raw materials from distant colonies and sold manufactured goods wherever there were buyers. A credit system to arrange the financing of this world trade spread far beyond national

boundaries. Germans selling chemicals in South America wore clothes made in England from wool bought in Australia and shoes made from hides bought in Argentina, paid for by cheques drawn on banks in London, or Paris or New York. Commerce had leaped beyond national frontiers. Economically the world, through the changes wrought by the Industrial Revolution, became interdependent. From an economic point of view, national units became too small, and though the idea of economic self-sufficiency, which in practice meant economic Imperialism, lingered, the fact was that all nations were being merged into a single economic system. This system was rough, chaotic, and haphazard, but it was so delicate that conditions in one part of the world rapidly affected conditions in another.

The necessity of some world organization to bring order into this chaos, and the recognition that such a unity, however rough, did exist, shared in the creation of the League of Nations, and an understanding of the growth of Nations, po-



## INTERDEPENDENCE AND THE LEAGUE OF NATIONS

litically, and their interdependence, economically, is essential to an understanding of the League. Far more important are those two great facts than the method of voting in an annual meeting at Geneva or an acquaintance with the clauses and paragraphs of the Covenant.

Because of these two great changes, the relations between peoples enormously increased and there was the growth at once of international law to guide some of these relations, and conferences and agreements to bring order into these relations. International law is that body of treaty agreements, customs, and decisions of national courts on points of international consequence, which nations recognize. Here it suffices to say that it was growing before the war, and was influencing the conduct of nations. International organizations, both governmental and pri-

vate, were also growing. In 1914, indeed, there were 300 international bodies established by governments; there were scores of others, such as international labour organizations, health societies, educational and scientific bodies, all serving, in some degree, to bring peoples together and to emphasize and express their interdependence.

In 1918, in the words of General Smuts, "the new situation called for world government." The tents of the past had been struck. "Humanity was again on the march." In the light of this new situation, in the light of the emotional horror of war, of the economic interdependence of nations, of democratic nationalism, and the increasing contact between these nations, the Covenant of the League was drawn up. The first draft was made by Lord Phillimore in



Photograph by F. H. Jullien

### THE 1929 ASSEMBLY OF THE LEAGUE

Seated in the second row on the right are the Canadian delegation: Senator R. Dandurand, Hon. J. C. Elliott, M.P., Hon. W. D. Euler, M.P., Rt. Hon. Sir George E. Foster and Miss Agnes McPhail, M.P., and, in the same row across the aisle, the British delegation: Rt. Hon. J. Ramsay Macdonald, Rt. Hon. A. Henderson and Viscount Cecil.



## INTERDEPENDENCE AND THE LEAGUE OF NATIONS

the Foreign Office of Great Britain and was influenced by the experience of the British nations in their relations with one another. The draft was amended and developed by President Wilson, General Smuts, Lord Robert Cecil, M. Leon Bourgeois, and others at the Peace Conference; and, as the Covenant of the League of Nations, became part of the Treaties of Peace signed at this time.

single international budget passed annually by the Assembly and collected from all member-states in proportion to their wealth.

The Assembly of the League of Nations is a meeting of representatives of the governments of the member-states. It is held at least once a year; and the Assembly in 1929 was the tenth assembly. Each nation may be represented



Photograph by F. H. Jullien

### THE INTERNATIONAL LABOUR OFFICE ON THE SHORES OF LAKE GENEVA

The Labour Office is the Civil Service of the International Labour organization, which deals with industrial and social problems.

This Covenant provided that the seat of the League should be at Geneva, Switzerland. There the Assembly and Council, the International Labour Conferences and Governing Body meet, and there the International civil services, the Secretariat of the League, and the Office of the International Labour Organization, are situated. The Permanent Court of International Justice, however, was established at the Hague; and all these meetings and branches are financed by a

by three delegates, assisted by any number of experts. Thus, Canada has been regularly represented at the ten ordinary, and the one special, assemblies by cabinet ministers, and on one occasion, in 1927, by the Prime Minister, the Right Honorable W. L. Mackenzie King. There are now fifty-four nations in the League, and thirteen which are not members. Among these thirteen are such great powers as the United States of America, the Union of Russian Socialist Soviet Re-



## INTERDEPENDENCE AND THE LEAGUE OF NATIONS

publics, and Brazil (which resigned in 1926) and such smaller powers as Mexico and Egypt. This incompleteness of the League is a serious impediment to its work; but many of these powers, though non-members, frequently co-operate with League Commissions and conferences, such as the World Economic Conference and Disarmament committees.

The Council of the League is a small executive of fourteen members, five of whom are permanent, because of their importance, Great Britain, Germany, France, Italy and Japan, and nine non-

with the four cases in which acts of aggression have been committed. The Council resembles a cabinet and the Assembly a parliament of nations, but neither Assembly nor Council may interfere with the internal affairs of any member or non-member.

The secretariat is the permanent international civil service, and the five hundred men and women who work in it are not representatives of, nor paid by, any nation. They are appointed internationally; are responsible, not to the country from which they come, but to



The Hands Studio

**TOM MOORE**

President of the Trades and Labour Congress of Canada.



Photograph by Boissonnas

**ALBERT THOMAS**

Director of the International Labour Organization.



Photograph by Jullien

**H. B. BUTLER**

Deputy Director of the International Labour Organization.

permanent, elected by the Assembly for a period of three years. Of this number, Canada, elected in 1927, is a member and has been represented at each of the meetings, usually four a year. Originally, it was proposed that the Council should consist only of great powers, but the smaller powers whose importance had been relatively increased both by the war and by economic changes, insisted on being represented, and the Covenant provided six seats for them, a number which was increased to nine at the time of the admission of the German Republic in 1926. It is the Council which first acts in the case of war, and which has dealt

the Secretary-General, Sir Eric Drummond, and they are paid from the budget of the League. The present secretariat has representatives of some forty different nations and is the first truly international civil service in history. It is divided into various departments of the work of the League. There are thus Mandates, Disarmament, Economics and Finance, Legal, Social and Information Sections. It is this Secretariat which creates what the newspapers call the "Geneva atmosphere." Some twenty Canadians have held posts in the Secretariat, or Labour Office, in the last ten years. Sir Herbert Ames was the first



director of the financial section, and the present assistant treasurer, Mr. Jean Bieler, is also a Canadian. The assistant Chief of the Transit Section is Col. Hiam.

### *The League and Labour*

The International Labour Organization is another branch of the League of Nations; and, though financed by the annual budget passed by the Assembly, it is an independent body with its own Annual Conference, Governing Body and Labour Office. The central purpose of the I. L. O. is to improve the working conditions of Labour throughout the world. This is a purpose that may be realized only by the action of the national governments in response to public opinion. In the interdependent world of to-day the depressed working conditions of one country influence and may impede the progressive improvement of those conditions in another country. Thus, cheap labour and long hours and poor working conditions in a cotton factory in India or Japan mean that cotton goods thus produced may undersell those produced in a country where wages are high, conditions healthful and hours short. The International Labour Organization faces that problem of bringing the nations together and inducing them to agree to standards of labour, such as the eight-hour day, which will become universal. To this end, the Labour Office prepares and the Annual Conference discusses recommendations proposing certain standards for all nations, which each nation, through its own government, is invited to accept. The I. L. O. represents a new departure in international government, for on its governing body, and in its Annual Conference, there are represented, not only governments, but also organizations of employers and of workers. It often occurs that the Labour representatives vote as a group against the employers, or the Government representatives. Thus, a British workers' representative may vote against the British employers' representative.

Canada, as one of the nine states of first industrial importance in the world,

has a seat on the governing body of the I. L. O., and, as well, Mr. Tom Moore, President of the Trades and Labour Congress of Canada, was elected by the workers' representatives of the annual conferences to represent them on the Governing Body. Canadians representing the government, the employers, and labour have also regularly attended the annual labour conferences, and there are several Canadians in the Labour Office, or Secretariat. Dr. Mack Eastman is the chief of the General Research section, M. Henri Binet, assistant legal adviser and Mr. D. A. Stevenson, member of the Maritime section.

### *Decisions Must Be Unanimous*

In the Council and Assembly of the League, the decision on any question, with few exceptions, must be unanimous. Progress, perhaps, might be more rapid if decisions could be taken by a majority vote as in a national parliament. But, this is impossible—it is impossible even in the Imperial Conference of nations in the British Empire—because it implies some infringement of national sovereignty. The League can work only by agreement; it can proceed only as the opinion of the world proceeds, and though this may seem to mean that the world may advance only as the slowest nation advances, it also means that the slower nations are constantly influenced by the more rapidly advancing nations and by the progressive opinion of the world.

The unanimous decision cannot, however, apply in the International Labour Organization. There, not only governments but also employers and workers, are represented and vote. Decisions are therefore taken when there is a two-thirds majority in favour of a particular course of action; and every member-state must submit to its own competent authority, for consideration and, if possible, for ratification, decisions arrived at by the annual conference.

### *Wide Range of the League*

The League of Nations, though it is but ten years of age, already has the



## INTERDEPENDENCE AND THE LEAGUE OF NATIONS

mechanism for dealing with any world question. Its ramifications are as wide as the world and there are numerous branches of its work that require too much space even to mention, let alone describe, here. There is the work of the Mandates Commission, of the Minorities section, of the Health section, of the Financial Reconstruction of Austria and Hungary, the Repatriation or Settlement

pealed to the League. The Council of the League met, communicated with Greece and arranged that hostilities should cease. Independent investigators were sent to the spot; made a report on the incident to the League, and Greece was required to pay 30 million levas, or about \$225,000 as compensation to Bulgaria. Four times the League, either on the request of one of the parties to a



Wide World Photos

### WITH MEMORIES OF WAR AND PLANS FOR PEACE

Hon. Philippe Roy, Canadian Minister to France, Senator the Hon. Raoul Dandurand, Canadian delegate to the League of Nations, and Marshal Joffre with his physician, at Evian.

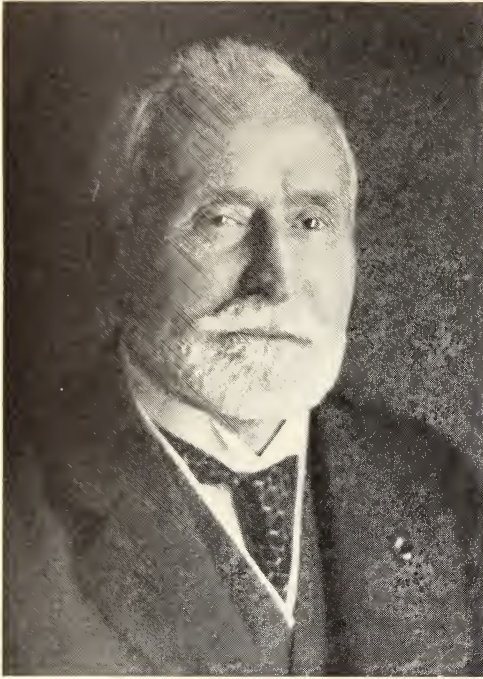
of Refugees after the war, of the Disarmament Commissions and Section, as well as the almost innumerable special committees or commissions dealing with transportation questions, passports, immigration, codification of international law, intellectual co-operation and so forth.

Two examples of its work, one in preventing wars, and one in the economic sphere, will indicate something of how it functions. In 1925, Bulgaria was invaded by Greece and immediately ap-

warlike action, or on the request of a power not concerned, has acted and prevented wars.

The Covenant of the League binds its members to submit all disputes to certain procedure, and no member may go to war until all those possible alternatives are exhausted. Those alternatives are (1) direct settlement by ordinary diplomatic negotiations, (2) submission of the case to the Permanent Court of International Justice if the question is of legal character, (3) arbitration, and (4) inquiry by





Photograph by C. Boesch

SENATOR

THE HON. RAOUL DANDURAND

President of the Assembly, 1925-26, Member of Council.

the League council. Conference, investigation, and delay, to allow pacific opinion to work, these are the three principles underlying League methods of preventing wars. Where a nation goes to war in violation of the covenant, sanctions, at first economic and finally military, may be applied against the aggressor nation. It is sometimes said that no great power would feel itself bound by such obligations, and that only wars between small powers can be dealt with by the League. That question has not been answered.

In the field of economics and finance, some of the most successful work of the League has been done. The Brussels Financial Conference of 1920 laid down principles which the League applied to the reconstruction of Austria and Hungary. The League Transit section and Transit Conferences have dealt with the problem of international rivers and international railway communications. In the World Economic Conference of 1927,

not only the League members, but Russia, the United States and other non-members were represented. This was the greatest conference of economists and financial experts ever held, and this conference, after enormous preparatory work, drew up reports and recommendations that were unanimously accepted, dealing with trade barriers, tariff wars and other economic problems of importance.

Canada is an original member of the League and occupies there the same position, exercising the same powers and assuming the same obligations as any other member-state. But, in some respects, her position in the League and in international affairs is unique; and, when the Canadian people are ready, her influence and work may become of real importance. By geography or by race, Canada is associated with the great powers of the present-day world. She is mid-way between Europe and the Orient. She is part of the new world, and a neighbour who understands the United States. She is the senior Dominion of the British Empire and in the constitutional development of the relations in that Empire has been the paramount influence.

Racially, Canada is allied not only to the Anglo-Saxon world of the British Empire and the United States, but also to the French Republic, and Canada is the only country in the world whose two official languages, French and English, are the official languages of the League. Traditionally, in her external relations, Canadian experience has been pacific, and her commercial development has been that of an exporting nation. Her history, too, is not without the experience which trains for international affairs.

Membership in the British Commonwealth is itself a training in international affairs. Then, Confederation, the experiment of creating a single nation on the basis of two races, two religions, two languages, was a constitutional feat of the greatest magnitude. The Canadian people may be young, but such experiences as they have had, as well as the geographic position of their country, prepare them for work in the international sphere.



# THE UNITED STATES

## *The Story of the Growth of the Republic*

When the United States was founded, republics were few and weak, and Europe predicted a speedy end of the young nation. For a time, the future did seem uncertain, but all the dangers were overcome until now in extent, stability, population, wealth, and power, the republic ranks either first or among the first among the nations of the earth. Monarchy has become the unusual form of government and the example and success of the United States as the oldest important republic has been an important factor in bringing about this situation. This chapter tells briefly of the development of the nation and explains what will be found in the succeeding chapters.

WHEN the Constitution of the United States was ratified by the thirteenth state the population of the new nation was less than four millions and the area did not include all the land east of the Mississippi. Since that time, both area and population have increased enormously. The area of continental United States (the forty-eight states) is a little more than three million square miles, and the territories and dependencies are about one-fourth more. Soviet Russia, Brazil and Canada are larger in area than the United States proper, and China also, if we count all the dependent and allied territories. Australia and India are almost as large. Of these only the Russian Union, China and India have larger populations.

Within the region are many variations of physical features. Some of the land is below sea level; some is in high plateaus and mountain peaks. In some parts the rainfall is excessive; in others little rain falls and much territory is real desert. There is much exceedingly fertile land and some which yields only a scanty return even though weather conditions be favorable. In many states the temperature falls far below zero several times during the winter, while some regions are sub-tropical. The greater part of the country, however, falls between all these extremes. Probably it is safe to say that the country contains the largest area of arable land in the world, and that the climate is certainly as favorable to exertion as any other area of equal size. In mineral resources it is first, with large supplies of coal, iron, oil, natural gas,

copper, lead, zinc, and many other valuable metals and minerals.

It is largely because of these natural resources that the little colonies grew, in what was really a short time, into a great nation. The first settlement in what is now the United States was the Spanish settlement at St. Augustine in 1565. Santa Fe, New Mexico, was the second, forty years later. The first permanent English settlement, as every school child knows, was Jamestown in 1607, followed by Plymouth in 1620. Meanwhile the Dutch had settled New Netherland. Soon the Swedes were to make a settlement in Delaware, and then the French began to drop down from Canada into the Mississippi Valley. The English overcame the Dutch and the Swedes, and challenged France. In 1763 the French acknowledged themselves worsted, and gave up to England and to Spain all their claims to the mainland.

Soon the thirteen colonies successfully revolted against England, and gained all the territory east of the Mississippi except the Spanish Floridas—East and West. Already restless spirits had crossed the Alleghanies to occupy the wilderness, and the number of these hardy pioneers increased rapidly. Families were large in those days as eight, ten or twelve children in a family were not uncommon, and some of them had to seek new lands.

As the settlements beyond the mountains grew, control of the mouth of the Mississippi was felt to be necessary since it was difficult to carry goods back over the mountains. So we find Jefferson buying Louisiana from France which had





PHOTO PHILIP B. WALLACE

**INDEPENDENCE HALL**, in Philadelphia, was built between 1732 and 1759 as the state house for the Province of Pennsylvania. The Continental Congress met here and voted the Declaration of Independence in 1776. Eleven years later, after independence had been won, delegates from ten states framed the Constitution of the United States in the same room.





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**MOUNT VERNON**, on the banks of the Potomac, is inseparably connected with the name of Washington, who loved it better than any other spot. The house was built by his half-brother, Lawrence, and was not a mansion, but the residence of a Virginia gentleman. It was in-

herited by Washington just after his marriage, and here he spent his happiest years, and here he died. When his heirs were forced to sell, the estate was bought by an association of patriotic women who have preserved it as a shrine of patriotism for the American people.



## THE UNITED STATES

taken back the territory once ceded to Spain. Louisiana, however, meant much more than it does to-day. Then it meant all the territory west of the Mississippi drained by that river and its branches. Many thought it would remain uninhabited for a century, perhaps more. From it thirteen states have been made

later, foreign born. The Indians were pushed back, and confined. State after state was admitted into the Union, until with Arizona and New Mexico, the roll was complete at forty-eight. The weak, unstable republic of thirteen feeble states, fringing the Atlantic, had spread over the whole country from the Atlantic to the



© Virginia State Chamber of Commerce

### WASHINGTON BIDDING FAREWELL TO HIS MOTHER

After she became a widow Mary Ball, the mother of Washington, removed to the old town of Fredericksburg, Virginia, where the house she occupied is still standing. This picture represents an attempt to reproduce a scene of long ago. The old house serves as background and the different characters were posed by citizens and students of Richmond.

wholly or in part. Then came the purchase of Florida in 1819.

Twenty-five years later Texas was annexed, and, following the Mexican War, all of the Southwest. Then came the compromise with Great Britain, which divided the Oregon country, giving what is now Washington and Oregon to the United States. Except for trifling changes of boundaries, the United States as a whole was complete.

Over these new lands the restless tide of pioneers streamed, native born, and

Pacific, and from the Great Lakes to the Gulf of Mexico.

Some of the local differences in the vast territory covered by the United States have already been mentioned. When we come to reduce these differences to order and classify them, we find that geographers differ considerably. One authority would make broad divisions into these four physiographic provinces: the Atlantic Lowlands; the Appalachian Highlands; the Central Plains and Plateaus; and the Cordilleran Highlands. Another division





© Peterffy

#### NIGHT VIEW OF THE EAST FRONT OF THE CAPITOL AT WASHINGTON

The Capitol at Washington is an impressive public building. The cornerstone was laid by Washington in 1793. The structure was partially burned by British soldiers in 1814, and the rebuilding was completed in 1827. Between 1851 and 1857 the two wings were added. The centre is of sandstone painted white, the wings of white marble.





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**THE WASHINGTON MONUMENT** rising high above any building dominates the city and has a thousand different aspects with all the varying conditions of time and weather. No view of it could be lovelier than this where we see it above the Japanese cherry trees which border the

water of the Tidal Basin, and are reflected from it. The monument itself is over 555 feet in height, and is faced with white marble from Maryland. Though the cornerstone was laid in 1848 progress was slow, for one reason or another, and not until 1885 was the work completed.



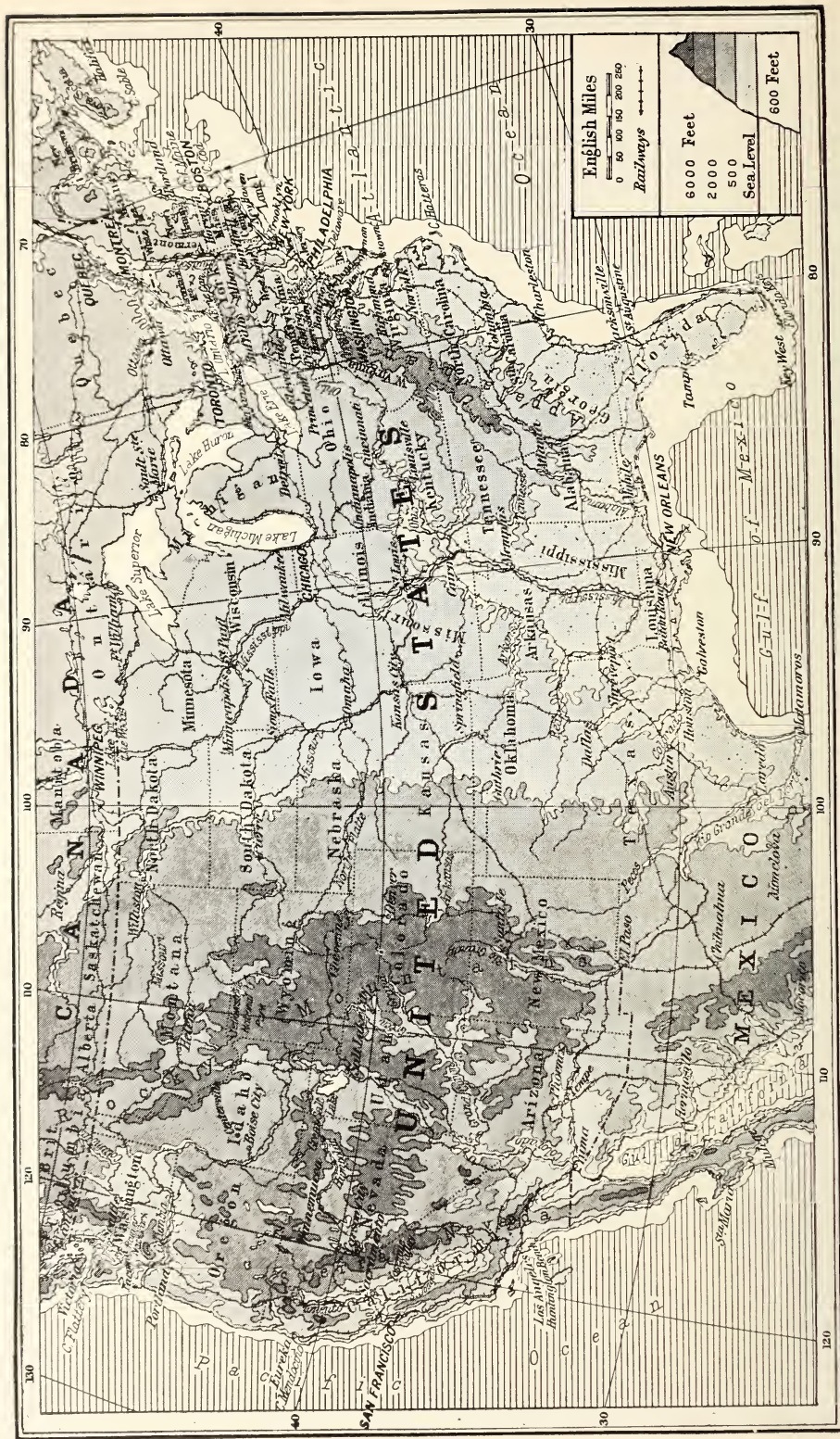


© ERNEST L. CRANDALL

**THE PAN-AMERICAN UNION**, an association of the twenty-one republics of the Western Hemisphere, occupies what is undoubtedly one of the most beautiful public buildings in the world. It is built in Spanish, or Latin-American style, around a patio nearly sixty feet square, which

is always filled with a luxuriant growth of semi-tropical plants. A glass roof covering the whole space is provided for the winter, but in the summer it is open to the sky. Below the cornice are the names of twelve men who are famous for their influence upon Pan-American history.





MAP SHOWING THE PRINCIPAL NATURAL DIVISIONS OF THE UNITED STATES



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sometimes used is based upon the slope of the land, that is, upon drainage areas. Whatever general divisions are adopted each of them must be further divided.

The Atlantic Lowlands, for example, fall naturally into the Coastal Plain, and the Piedmont Plain. The former extends from New England to Florida. This is a smooth land, in comparatively recent time under the sea, and is the America of the early colonists. The Piedmont Plain is usually understood to be that belt west of this region rising gradually to the low

immense interior of the United States (commonly called the Mississippi Valley) falls into many divisions, as the Appalachian Plateau; the Central Plains; the Laurentian Upland, or Superior Highland around the Great Lakes; the Ozark-Ouachita Uplands; the Gulf Coastal Plain; and the Great Plains. In addition there are minor districts which belong to none of these.

The Appalachian Plateau stretches from the Catskills to Central Alabama, and slopes gently westward until it is



### THE DIVISIONS OF THE UNITED STATES AS DESCRIBED IN THIS VOLUME

ranges of the Appalachians, though in New England it is less well marked than farther to the south. It is a rougher land, more eroded, and with deeper river valleys. Geologically it is much older than the Coastal Plain.

The Appalachian Highlands extend from Newfoundland, though with several breaks, until they merge into the Gulf Coastal Plain (of which we shall speak presently) south of Birmingham, Alabama. The mountain peaks are lower than many in the Rockies, and between the parallel ranges are rich valleys.

West of the Appalachian ranges the

merged into the Lake Plains and the Ohio Valley. Next we have the Central Plains stretching to the hundredth meridian. This is the prairie region. The expanse is broken by the region around the Great Lakes, which in turn might be again subdivided. There the ice-sheets of the past have deepened the lake basins and thrown morainic ridges about them while the higher levels of the lake waters dammed by ice in the northeast are marked by a succession of old and, now abandoned, lake beaches.

South of the Missouri is the Ozark-Ouachita Uplands covering much of Mis-



souri and Arkansas, and extending into Oklahoma. This rough region was once heavily forested. South of this region is the Gulf Coastal Plain extending from Florida to the Rio Grande, and along the Mississippi extending northward to the mouth of the Ohio. It is an alluvial region, with heavy rainfall and is the world's greatest source of cotton. To the west of all these regions and rising gradually to the base of the Rockies are the Great Plains, somewhat higher than the prairies, with less rainfall and infrequent forests. It was not so long ago chiefly a grazing region but farming is increasing, in some places with the aid of irrigation.

### *The Cordilleran Region*

The great ranges of the Rocky Mountains form the eastern part of the Cordilleran region. Next comes a series of high plateaus called the Columbia in the north, the Great Basin farther south, and finally the Colorado Plateau. Generally these are semiarid and some parts are almost without rainfall. Forming the eastern boundary of California are the Sierra Nevada Mountains. The Cascade Range continues this mountain wall northward through Washington and Oregon. Along the sea are the lower mountains known as the Coast Ranges. Between the Coast ranges in the West and the Sierra Nevada and Cascade ranges in the East are two valleys, one the Puget Sound Trough, and the other the valley of California. Both of these are wonderfully fertile.

### *Life upon the Frontier*

An adequate description of any one of these divisions and subdivisions of the United States would require a volume, several volumes for some of them. The political divisions we call states do not follow these natural divisions. Some states are in two or three of them, while on the other hand several contiguous states may be in the same natural division.

Such a wide expanse of territory with so much variation in elevation, climate, soil and other resources must show differences in the life of its inhabitants. In

the beginning of the young republic was almost entirely agricultural, though hunting and fishing furnished a part of the livelihood, and gave the inhabitants something to sell. Naturally there was some building of ships. Most manufacturing was incidental to farm life. Often the farmer was forced to be a carpenter, a blacksmith and a tanner and a shoemaker of a sort. The housewife spun wool, wove it into cloth, and often made the clothes of the family. Soap and candles were made in the kitchen. Often, on the frontier, what could not be made in the neighborhood, the family did without.

Gradually little factories were set up; iron was smelted, nails, horseshoes and simple tools were made; better and better boats were built; small factories grew into great establishments; new inventions were made; new factories were set up to make more and more kinds of articles; canal, railroad and steamship made interchange of goods easier. New farming machinery enabled one man to do as much work as several had done before. Almost without knowing it the United States became a great manufacturing country, and in the present century passed all the other nations in the value of its manufactured products; at the same time it has continued to send away immense quantities of food and raw materials—wheat, meat products, cotton, tobacco, copper, petroleum and many others.

### *The Growth of Cities*

Great cities grew up. A snug little city at the tip of Manhattan Island became New York; a dignified town on the Schuylkill became Philadelphia; a village in a swamp close to a fort became Chicago; and in our own day we have seen Detroit quadruple its population within thirty years because men had invented a horseless carriage which everyone wished to own. Dozens of sleepy towns grew into busy, bustling cities, often losing much of their charm in the process. In some cases, as that of Gary, Indiana, where great steel mills were built on the sand dunes of Lake Michigan, a city has sprung up almost in a night.





Photograph by Peyser & Patzig

# STATUE OF GENERAL JAMES EDWARD OGLETHORPE, AT SAVANNAH



Courtesy Mobile Chamber of Commerce

## TWO MONUMENTS TO FOUNDERS OF SOUTHERN CITIES

General Oglethorpe, an English soldier, became interested in the lot of poor debtors, and determined to found a colony where they might have another chance. He founded Savannah in 1733. The lower picture shows a monument to Jean Baptiste Le Moyne, Sieur de Bienville, the founder of Mobile which was for a time capital of French Louisiana.





Courtesy Paramount Pictures

### PIONEERS FORDING A RIVER ON THEIR WAY TO THE WEST

Before the transcontinental railways, settlers on their way to the West formed a loose organization under an elected leader, and moved in wagons drawn by horses, mules or oxen.

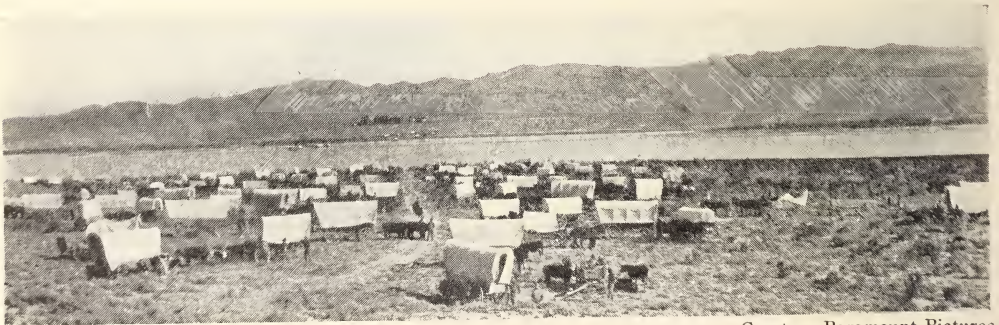
The first factories were in New England and the Middle Atlantic states, but they have invaded the South and the West. Now the states in which cotton grows use more of the staple than all the other states. The manufacture of motor cars and agricultural machinery is largely an industry of the Middle West. The steel industry has developed in both South and West, though Pennsylvania is still far in the lead. Boots and shoes seem to be marching toward the Middle West. Great petroleum refineries have sprung up in the South and West following the greater production of crude oil in those sections. North Carolina manufactures half the tobacco, as well as spinning more cotton than any other state.

Though New York is first in the value of manufactures, with Pennsylvania second, Illinois is third, Ohio fourth and Michigan is not far behind. Each of five other states west of the Alleghenies annually makes products valued at over a billion dollars, while two states of the South do the same. Fifty years ago the

manufactures of the whole United States were worth only a little more than five billions annually, a figure surpassed by three or four individual states now. There are some states, to be sure, where the amount of manufacturing is still small, but it is growing everywhere.

Naturally, manufacturing brings about the growth of towns and cities. A majority of the population no longer lives in the country. In 1920, for the first time it was found that more than half of the population (51.4 per cent) lived in towns of 2,500 or over, and the next census will doubtless show a higher percentage. At the same time the smaller proportion of the population left on the farms is able to produce more than enough food for all.

During this period of rapid growth and development, the framework of the government has shown comparatively little change. The first twelve amendments to the Constitution were almost a part of the original instrument. Other amendments freed the slave and made him a citizen, changed the method of electing United



Courtesy Paramount Pictures

### MORNING IN CAMP: PREPARING TO MOVE

When in danger from Indians the wagons were drawn up at night in a rough circle with both people and cattle inside. At other times the animals were allowed to graze.



## THE UNITED STATES

States Senators, permitted the levy of an income tax, forbade the manufacture and sale of alcoholic liquors as a beverage, and gave the suffrage to women.

Otherwise the instrument is as yet unchanged. President, Congress, and Supreme Court are still the important factors in the government, though both Congress and the Supreme Court are larger in membership, and all have infinitely more to do. In the beginning the government did little more than keep order and look to the national defense. Washington's first Cabinet consisted of Secretaries of State, Treasury and War, as

the Attorney General did not at first rank as a Cabinet officer. During the first year the new government spent less than a million dollars.

The Cabinet now consists of ten members; in addition to the four mentioned above there are the Postmaster General, and the Secretaries of the Navy, the Interior, Agriculture, Commerce, and Labor. There were only a few thousand employees in the first years, while now the number is counted by the hundred thousand. There are more than 500,000, perhaps as many as 600,000, civil employees in addition to the military, naval, marine



Courtesy State of New Hampshire Publicity Bureau

### ONE OF PORTSMOUTH'S OLD MANSIONS

Portsmouth, New Hampshire, originally known as Strawberry Bank, is one of the old towns of New England, and was once a famous port. Many wealthy merchants and shipowners of colonial days built dignified mansions, several of which are still standing. The oldest house was built in 1664. This is the Warner House, built in 1718.





Courtesy Winston-Salem Chamber of Commerce

#### THE OLD COFFEE-POT AT WINSTON-SALEM

The old Moravian town of Salem, North Carolina, is now a part of the modern city of Winston-Salem. This old coffee-pot is a relic of the time when tradesmen advertised their wares by such symbols.

and coast guard forces. The Post Office Department alone employs about 350,000 persons. The national expenditures are ordinarily about three and a half billion dollars a year, or around thirty dollars for every man, woman and child in the country. The state and local expenditures are much more.

Some of the great increase in officials and expenditures, is due, of course, to increase of population, but more is due to the fact that the government now engages in so many more activities, which years ago were not supposed to be the concern of a government. The Post Office not only transmits and delivers letters to the door but also merchandise, and in addition performs some of the functions of a bank. The Department of

the Interior, through the Land Office, the Pension Bureau, the Indian Service, the Educational Bureau, the Geological Survey, the Reclamation Service, the National Park Service, and through its authority over railroads, requires thousands of officials. The Agricultural Department makes and publishes studies helpful to the farmer in many lines, and besides observes and reports the weather. It establishes and maintains quarantines against harmful plants, and against the diseases of both plants and animals. It inspects foods and drugs, wages war against various insects, maintains model farms, and does much other educational work.

The Department of Commerce supervises radio broadcasting, takes the census, maintains a Bureau of Standards, looks after fisheries, light-houses, and the coast survey, inspects steamboats, grants patents, and supervises the operations of mines, besides gathering facts at home and abroad which might be of interest to manufacturers and merchants. The Department of Labor has charge of immigration and naturalization, the welfare of children, the employment service, and the general interests of labor.

Many of these activities have been only recently undertaken. The government now employs many different sorts of engineers, scientific experts in many branches, economists, sociologists, historians, librarians, inspectors of many kinds, who would have found no place in the government thirty or forty years ago. Almost every year Congress creates some new bureau or other organization to undertake some new functions. For example, the invention of radio made some supervision of broadcasting necessary.

Washington has become a busy place.





Photograph by Ph. B. Wallace

THE PENN HOUSE AT CHESTER, PENNSYLVANIA. BUILT 1683



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### TWO PIONEER HOMES IN THE AMERICAN WILDERNESS

William Penn came to his province in 1782, and took up his residence at the Swedish settlement of Upland which he renamed Chester. There he occasionally occupied this brick and stone house. Abraham Lincoln was born on a farm near Hodgenville, Kentucky. The rude log cabin has been restored and is enclosed in a stately marble building.



## THE UNITED STATES

When the government was moved there from Philadelphia in 1800 there were a few government buildings in the woods and the streets were deep in mud. For seventy-five years afterward it was an unkempt, ragged town with little to attract the visitor. It has become a beautiful city with dozens of public buildings, some of which are very impressive. There is little manufacturing and most of the population is dependent directly or indirectly upon the government for a livelihood. Because the engineer who laid out the city, Major l'Enfant, had vision, abundant room was left for avenues and parks, and therefore the city gives an impression of spaciousness offered by no

other large city, even though the whole plan has not been carried out. Washington in the spring is a sight to be remembered forever.

The Census Bureau divides the United States into nine groups of contiguous states. These are New England, Middle Atlantic, East North Central, West North Central, South Atlantic, East South Central, West South Central, Mountain and Pacific. These divisions are chiefly for convenience, and our divisions differ somewhat. The nine divisions have been reduced to four, the Northeastern, Southern, North Central and Western, as can be seen by the map. Each of these groups will be discussed in turn.

### THE UNITED STATES: FACTS AND FIGURES

#### THE COUNTRY

The total area of continental United States is 3,026,789 square miles (land area 2,973,774 square miles); population (1928 estimate), 120,013,000.

#### GOVERNMENT

Federal republic of 48 states; executive power vested in a President and a Cabinet of 10 members; legislative power in a Congress consisting of 2 houses, a Senate composed of 2 members from each state and a House of Representatives of 435 members (each state is given representation according to its population). Each state has a Legislature of 2 houses, a Governor and other executive officials. Both houses of the Legislature are elective, but the Senators have larger electoral districts.

#### COMMERCE AND INDUSTRY

The United States ranks first in world production of wheat, corn and cotton; other important crops are hay and forage, vegetables, fruits, oats, rye, barley, buckwheat, rice, tobacco and sugar crops. Swine, sheep and cattle are raised in great numbers; 177,354,000 head of livestock of all kinds (1929 estimate). Mineral resources are rich and varied; of the metals, copper is first in value, followed by iron ore, zinc, lead, gold, silver, aluminum, manganese, tungsten, platinum and quicksilver. The non-metals include coal, petroleum, natural gas and a variety of building materials. Petroleum is the most valuable mineral product. The chief timbers are pine, fir, hemlock, spruce and cedar. Extensive salt and fresh-water fisheries. Manufacturing has become highly developed; some of the important industries are motor vehicle manufacture, slaughtering and meat-packing, iron and steel, steel works and rolling mills, petroleum refining, printing and publishing, flour mills, textile mills and electric light and power generation. Chief exports are raw cotton, petroleum and its products,

industrial and agricultural machinery, automobiles and accessories, grains and grain products, iron and steel products, tobacco, cotton manufactures, sawmill products; leading imports are raw silk, rubber, coffee, sugar-cane, paper and paper manufactures, tin, petroleum, hides and skins and furs.

#### COMMUNICATIONS

Railway mileage (1927), 249,131; total length of telegraph wire (1927), 2,146,822 miles; ocean cable, 104,541 nautical miles; length of telephone wire (1927), 63,836,182 miles. There were 627 radio broadcasting stations in 1928. Commercial air transportation has had rapid development since passage of air commerce act in 1926; 900 municipal, commercial, army and navy airports in operation and 921 more proposed; there were 4,156 licensed aeroplanes in 1928.

#### RELIGION AND EDUCATION

No established church; all denominations represented. Protestants about 59 per cent of church membership (1926). Each state has a system of free public primary and secondary schools supported by state and local taxation. There were in 1926, 23,127,102 pupils enrolled in elementary schools (public and private). There are numerous professional schools as well as 975 colleges and universities.

#### CITIES

Washington, the capital, in District of Columbia. Population (1928 estimate), 552,000. For other cities, see Sectional Summaries.

#### OUTLYING TERRITORIES AND POSSESSIONS

Include Alaska Territory, Hawaii Territory, Philippine Islands, Porto Rico (unincorporated territory), Guam, American Samoa, Panama Canal Zone and the Virgin Islands of the United States. The total area is 711,604 square miles; population (1920), 12,112,545.



# FROM MAINE TO MARYLAND

## *Town and Countryside in the Historic Northeast*

The Northeast is not a geographical unit, and the territory from the Potomac to Canada possesses fascinating variety. New Hampshire is different from Delaware, Boston is not like New York City, yet every one of the eleven states has some interests in common with the others, and the charm of Colonial times lingers here and there in them all. This is a region rich in the beauty of shore and mountain and rolling countryside, rich in the resources of mines and water power, with great industrial and commercial cities and many centres of education. Altogether, the long-established states at the eastern gateway of the continent form one of the most important, populous and beautiful sections of the whole country.

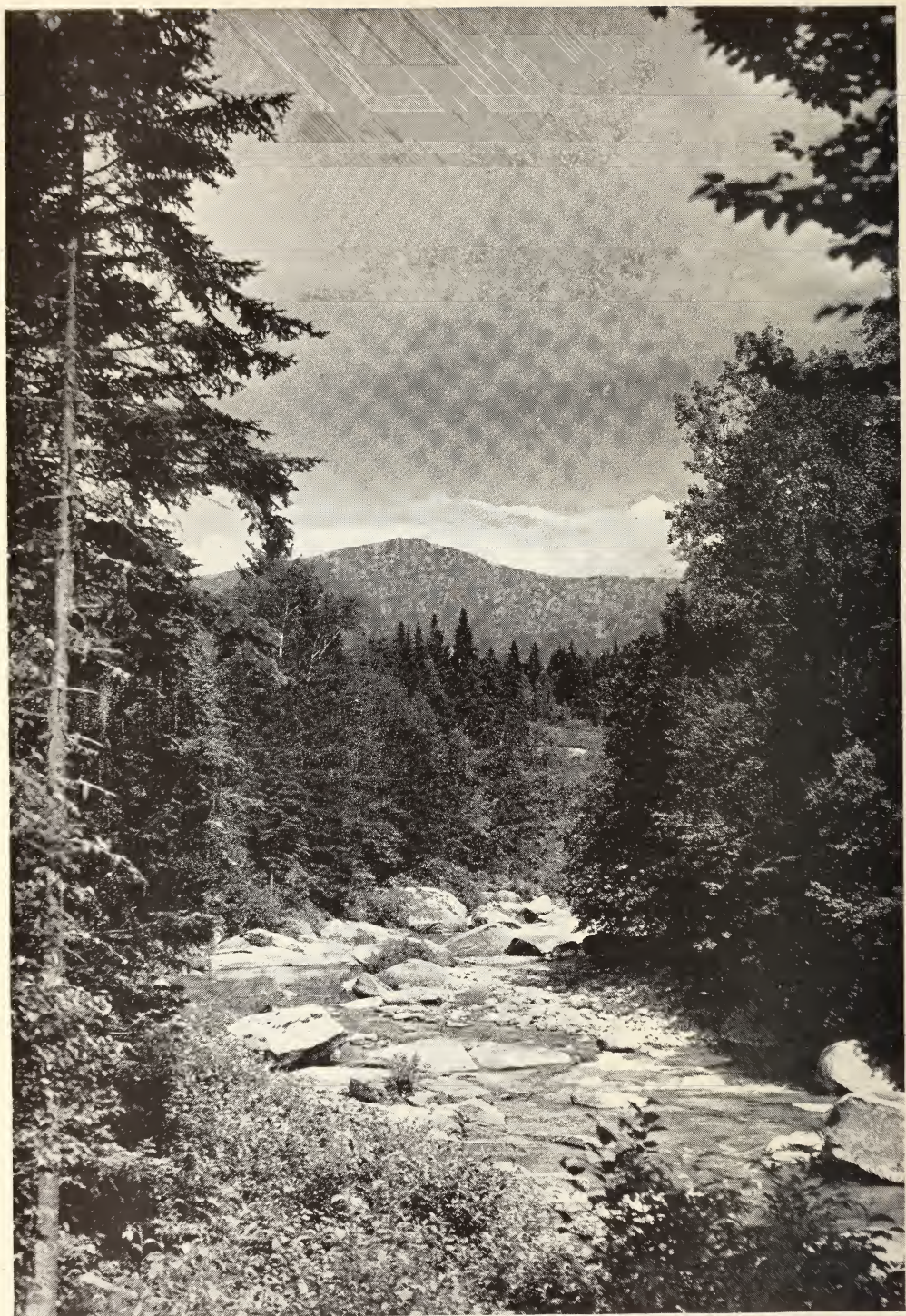
NO part of the United States is more richly interesting than the Northeast. Historically, scenically, industrially—whatever the viewpoint—the states of the Atlantic seaboard from Maryland and Delaware north to the Canadian border are a fascinating group. Here history was made in Colonial and Revolutionary days, and every changing development of the nation has been reflected in this region. New England was the first industrial section in America and is still one of the great shoe and textile centres. Important manufacturing cities dot the map from Maine to Maryland, and farms of many kinds help feed the millions engaged in commerce and industry. The countryside is extremely varied and each section beautiful in its own way, whether we like best the flat salt marshes of the Jersey shore, the Finger Lakes of western New York or the stony elm-shaded pastures and the rocky coast of New England.

These contrasts in the landscape show us vividly that the different states are not the same geographically, and that the state boundaries do not follow natural physical lines. Of all the eleven north-eastern states, Delaware is most nearly a unit; except for a small section near its northern boundary, it belongs entirely to the Coastal Plain which, as we remember, stretches from Texas and Florida to Long Island, and includes the low sandy point of Cape Cod. Half of Maryland and much of New Jersey are thus part of the Plain. Back of it in Maryland, Pennsylvania and northern Jersey are the rolling

hills of the Piedmont Belt, and then come the Appalachian Ranges—the mountain backbone of eastern North America. The rough plateau country west of the Appalachians covers all western Pennsylvania and most of southern New York. The Adirondacks are separated from the mountains of northern New England by the valleys of the Hudson and Lake Champlain. Vermont is almost entirely mountainous and so is half of New Hampshire, but the coastal region is lower.

Of all the Northeast, New England was the least inviting when the first colonists from Europe came looking for new homes, but it was settled nevertheless, and its people early took a leading part in American development. The various colonies at Plymouth, Massachusetts Bay, Providence, New Haven and elsewhere gradually came to be connected by more settlements, and a certain sort of unity was forced upon them by the necessity of fighting off French and Indian attacks. It was a hard life they led, and only settlers strong in body and spirit could survive; but they prospered in spite of Indian wars, severe winters, and in places a thin or patchy soil. They made their own clothing, shoes and furniture, because they had to, and the many hand industries which developed at this time were one basis of later manufacturing supremacy. The colonists also had an interest in education, largely due to their deep respect for Biblical and theological learning. Thus it happens that New England can boast the first factories, the first printing-press and the first college in the United States.





Courtesy Boston and Maine Railroad

### THE HIGHEST MOUNTAIN OF THE NORTHERN APPALACHIANS

A bend in the rocky Ammonoosuc River opens up a lovely vista of Mt. Washington, framed by hemlock trees and outlined against a bank of white clouds. The bare summit is 6,293 feet above sea level, in the heart of the Presidential Range of the White Mountains.





Photograph by Morton, Courtesy Boston and Maine Railroad

# MARBLEHEAD IS INTERNATIONALLY FAMOUS AS A YACHTING CENTRE

This beautiful harbor is always alive with boats, from fishing dories to luxurious steam yachts. A good stiff breeze brings out every sailboat, and there is no more thrilling sight than a trim graceful craft like this with all her canvas spread.



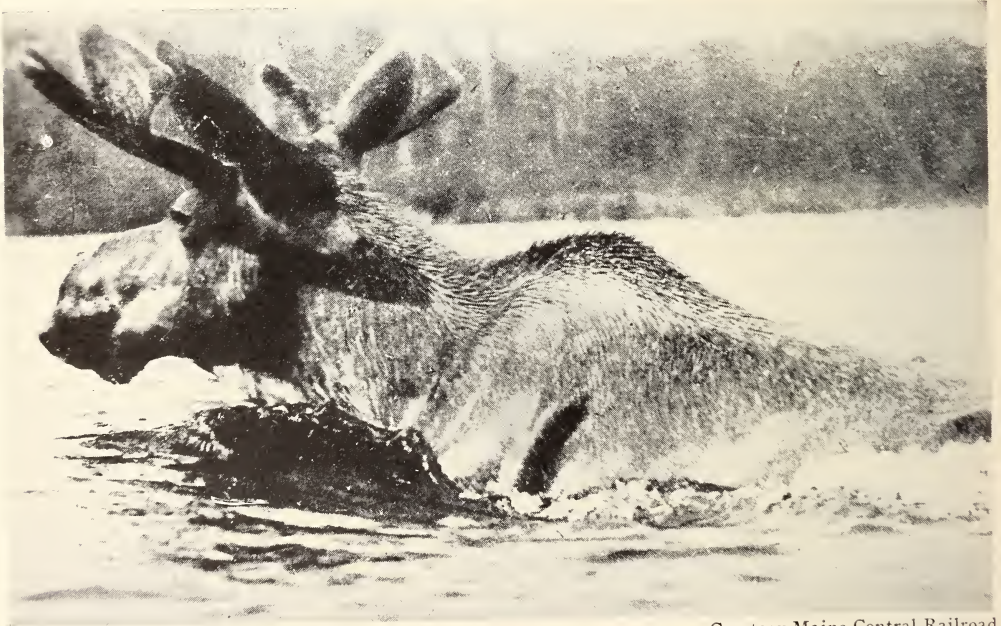
## FROM MAINE TO MARYLAND

New York, of course, was settled by the Dutch, and did not come into English hands until 1664, when upper New Jersey also became English. In Delaware the Swedes had been first, but the Dutch governor of New Netherland, sturdy old Peter Stuyvesant, conquered New Sweden and held it until he himself was expelled by the English. Maryland was the first colony to insist upon religious freedom for all. Pennsylvania, also famous for its toleration in this respect, was not founded until 1682, but it grew rapidly and attracted many colonists from the British Isles and Germany.

Just as New Englanders were forced at an early date to join together for mutual protection, so the whole group of English colonies learned a certain sort of co-operation in the almost continuous fighting against the French and the Indians. Yet such was the self-reliance and independence necessarily developed by each colony that it is a wonder they ever stuck together firmly enough to carry through the Revolutionary War. Boston was from

the first a centre of resistance, and Philadelphia was the meeting-place of the Continental Congress and the Constitutional Convention. Everywhere throughout the Northeast are reminders of Colonial and Revolutionary days. The number of houses where Washington slept and which served as his headquarters during this or that battle has become proverbial.

We are less likely to find monuments commemorating important events of the industrial revolution which followed upon the political one. Mechanical and economic changes of far-reaching importance coincided roughly with westward expansion. At the beginning of the nineteenth century the United States was a nation of small farms and hand industries; small cities and many farms were scattered along the seaboard north of Florida, and a few outposts stood in the wilderness between the Appalachians and the Mississippi. By 1920 the territorial boundaries had long since reached the Pacific and extended overseas, and the nation was predominantly urban and in-



Courtesy Maine Central Railroad

### A BULL MOOSE TAKES TO THE WATER

Each fall when the hunting season comes around, Maine is the goal of hundreds who love to follow the game trails, and every hunter in the woods hopes to bag a moose, the biggest prize of all. A full-grown bull moose stands about six feet high at the shoulders, and his antlers may measure four and a half feet across.





Courtesy Maine Development Commission

### A BIG LOG DRIVE ON THE KENNEBEC RIVER, IN MAINE

All winter the lumber camps of Maine are busy cutting great logs of pine and spruce, and when the spring thaw breaks up the ice, the timber is floated downstream to lumber and paper mills. Managing a big drive like this is no easy job, and many a lumberjack has lost his life trying to break up a log jam.

dustrial, with manufacturing done in factories on a gigantic scale. Water power, steam power and finally electric power—the development of such resources accompanied and made possible the invention of complicated and delicate machinery which took industries out of the home and required large capital resources.

The Northeast experienced these industrial changes first. In New England, especially, thousands went into the factories as farming grew less and less profitable, while other thousands went west to settle new states. Hardy spirits took to the sea in greater numbers than before, as fishermen, whalers and sealers, and fast clipper ships from Boston or Baltimore did much of the carrying trade of the world until steam-driven ships of iron destroyed their supremacy. Fresh immigration kept adding to the cities, so that the racial make-up of the population had entirely changed, and newcomers from Europe and their descendants outnumbered the descendants of the original colonists. In New York City the results of immigration and industrialization were

most pronounced of all, on account of its commanding location and its fine harbor, but Philadelphia and Baltimore also grew to be great seaports and railway terminals, and Pennsylvania coal and coke made Pittsburgh into a centre of the iron and steel industry.

Thus the wilderness of 1620 was transformed in three centuries. Could the Puritan leaders see Boston to-day—could Peter Stuyvesant see Manhattan Island, or Penn his Philadelphia—they would think themselves in another New World. Yet if we travel from end to end of the Northeast we shall find the transformation not always complete. There are stretches of countryside in New England which still look much as they did in Colonial days; there are old farmhouses and meeting-houses in Pennsylvania and New Jersey which date almost from Penn's time, and boxwood grown from cuttings of English shrubs still grows on old estates of the Maryland Eastern Shore. Such survivals of an earlier day give the East much of its beauty.

Those who have not seen New England





Courtesy Boston and Maine Railroad

### THE SPIRIT OF NEW ENGLAND PERVADES THE OLD MANSE AT CONCORD

No place in New England is more beautiful and more memorable than Concord, Massachusetts, and the Old Manse with its gambrel roof shaded by a gracious elm tree is one of Concord's most famous houses. Here Emerson once lived and here Hawthorne wrote *Mosses from an Old Manse*.

The bridge defended by the minute men is not far from the house.



Courtesy Boston and Maine Railroad

### CRAIGIE HOUSE BELONGS WITH THE TRADITIONS OF CAMBRIDGE

The stately grace of Colonial mansions is in every line of beautiful old Craigie House. Washington made it his headquarters in the early part of the Revolution, and later it was the home of Henry Wadsworth Longfellow. It stands on Brattle Street and faces Longfellow Court, a lovely little park named in honor of the poet.





Photograph by E. G. Wooster

### ONE OF NEW ENGLAND'S MAGNIFICENT ELM TREES

Without the gracefully arching elms which shade every village green, New England would be infinitely poorer. A fine tree can lend beauty to the commonest country road, and give character to any house. This white farmhouse at Ridgefield, Connecticut, set in a bend of the road under its great tree and surrounded by its picket fence, is typical of the countryside.



Photograph by Leonard Schwartz

### THE CHARM OF THE COLONIAL LINGERS ON IN DOVER

There is no place in the United States where the atmosphere of former days persists more delightfully than in the capital of Delaware. Dover was founded in 1717, and the Ridgely house, built of quaint red and black-faced bricks brought from England, is one of the beautiful old houses which face the quiet Green in front of the State House.



cannot realize its charm. Compared with western North America or South America its scenery is not at all spectacular; here are no stupendous peaks fifteen or twenty thousand feet high, no snow-covered volcanic cones, no enormous glaciers. The low wooded mountains, the rocky fields, the pockets of good soil, the many lakes large and small tell the geological story of an old land, with hills eroded and scarred by glacial action. Valuable granite and marble quarries are concealed in those hills, and the beautiful lakes to-day provide ideal locations for many a summer camp, in Maine, New Hampshire and Vermont. Spruce and pine, hickory and hemlock still cover large areas, fringe the tortuous coast of Maine, and seem to summer visitors like the forest primeval, but most of it is second and third if not fourth growth. Lumbering is less and less profitable in the Northeast and much reforestation is necessary. The tourist business has become, in some parts of New England, even more important than lumbering or farming. Farmers take summer boarders or rent summer camps; old inns become famous, new hotels are built and the resort trade of three months supports many a community for the balance of the year. Along the cool Maine coast, Mt. Desert, Bar Harbor, Penobscot Bay and Boothbay Harbor are names known alike to tourists, week-enders, tired vacationists and fashionable summer colonists. The combination of surf and rock and forest has a strong appeal for many people while others prefer the deeper woods of the interior, where long and exciting canoe trips lead from stream to stream and lake to lake.

### *Hills and Mountains*

For those who like the hills better than the sea, Vermont has its Green Mountains and New Hampshire its White Mountains. Both ranges are green in summer and white in winter, and the call of winter sports at Hanover is becoming almost as insistent as the summer lure of mountain villages, forest trails and blue lakes hidden away in the green hills. Massachusetts in turn has the lovely Berkshire Hills,

and in addition a coastline of superb variety. The North Shore—that is, the shore above Boston—boasts a succession of beautiful headlands and wholly delightful old towns: Marblehead, fascinating Salem, Beverly, and Gloucester in the lee of Cape Ann. This is the region of fishing-schooner and clipper-ship fame; sails are still mended on Gloucester docks and codfish spread out in the drying yards. Gloucester and Boston ship cod, herring and mackerel even to distant points, but those who have never eaten fresh Gloucester mackerel or swordfish new-caught off Martha's Vineyard do not realize how delicious fish can be.

### *Plymouth and Cape Cod*

Then there is the South Shore, past Quincy and Hingham to Plymouth and Cape Cod. "The Cape" is known to thousands who love its sandy roads and high dunes, its beaches and its tough, wind-bent pine and juniper trees, its weathered old frame houses with door-yards of asters, and its white picket fences lined with tall dahlias. Nantucket and Martha's Vineyard, those two low islands across Nantucket Sound from Chatham and Falmouth, are akin to the Cape geologically; they were settled by the same kind of sea-faring folk, who went on fishing and whaling voyages and built the same kind of low charming houses.

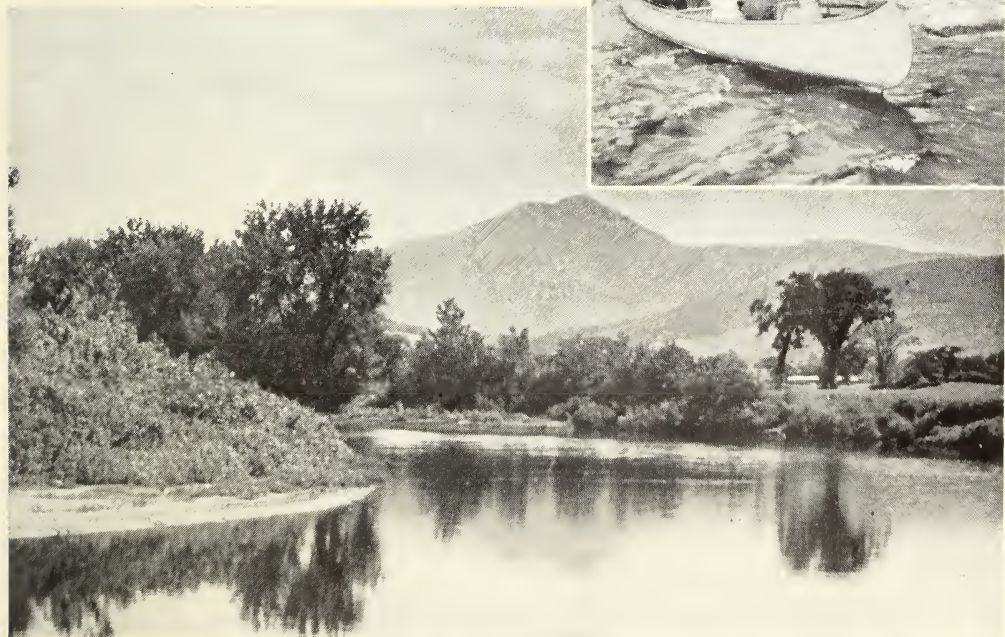
### *Little Rhode Island*

The greatest whaling port of all was New Bedford, as readers of Moby Dick so well remember. To-day it is one of the great cotton textile towns, like Fall River just to the west and Pawtucket and Providence across the line in Rhode Island. The smallest state in the Union has almost more water than land, for Narragansett Bay divides it in two, cutting deeply inland. The low hills of Rhode Island and Connecticut are much alike in character, and are beautiful with many swift-moving streams whose waterfalls—as in the rest of New England—have determined the locations of factories. A full description of New England's manufacturing towns is here impossible.





Courtesy Maine Development Commission  
ACROSS MOOSEHEAD LAKE



Courtesy Vermont Bureau of Publicity ; inset, Photograph by V. E. Lynch  
QUICK WATER AND STILL WATER IN NEW ENGLAND

Moosehead Lake is one of the largest in Maine, and above we see part of it from the top of Mt. Kineo on a calm day. The Winooski River in the lower picture looks almost as quiet as the lake and reflects the striking outline of Camel's Hump, near Huntington, Vermont. It is rough water that gives the canoeist his greatest thrills.





COURTESY GREEN MOUNTAIN CARD COMPANY

**ON COLD DAYS** in early spring when the sap begins to rise it is time for the first step in the making of New England's sweetest product, and the Vermont farmer sets out to tap his sugar maples. He bores a hole in each tree and places a small bucket under each tap hole. Later, as we

see here, he makes the rounds again to get the sap which has collected. The barrelful on this sled will be added to others at the sugar house and then will be boiled down to make the delicious clear maple syrup and cakes of brown toothsome sugar for which Vermont is famous.





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**MULBERRY STREET** on New York's lower East Side is far from the stillness and cold beauty of the Vermont winter woods. The city is so full of people that it seems impossible to crowd any more in, and yet year by year its amazing growth continues. Hundreds of thousands

of New York's millions have come from other parts of the country and from abroad, and there are plenty of foreign faces in this picture. Many an East Side youngster has never known any life save that of tenements and pavements, with an occasional trip to Coney Island.



There are the huge paper mills of Millinocket in the heart of the Maine woods, the woolen and cotton mills of Manchester, Lowell and Lawrence, the shoe factories of Haverhill, Lynn and Brockton; watches come from Waltham and clocks from Waterbury, jewelry from Attleboro and typewriters from Hartford. It is surprising how many articles of every-day use are made in this small area.

### *The Effect of the Lakes*

New York in turn presents a fascinating combination of scenery and industry. The Adirondacks are more varied than the Green Mountains, from a geographical point of view. Lake Ontario and Lake Erie influence the climate and the products of western New York favorably, so that it is a country of orchards and vineyards, and in good years fruit has been so plentiful as to go unpicked. Throughout the Northeast, farming must be intensive and specialized or it is profitless, and abandoned farms, whether in Vermont, New York or Pennsylvania, tell the same story of non-adaptation to economic and local conditions.

### *The Route to the West*

It is the Barge Canal and the railroads following its route which link east to west in New York. Add cheap transportation to hydro-electric power, and the result is a string of manufacturing cities from Buffalo to Albany, each well known in its line: optical and photographic goods from Rochester, collars and cuffs from Troy, electrical machinery from Schenectady. Down the Hudson Valley from Albany pours the volume of commerce which determines New York City's leadership in trade. On each bank is a railroad, and the river itself is a highway. It is one of the country's most beautiful streams, cutting its way down from the heart of the Adirondacks, joined by the Mohawk and flowing on past the Catskills through the highlands until it spreads out at Tappan Zee into a bay four miles across; then suddenly just below Nyack the Palisades begin, and those magnificent cliffs line the

west side of the river until we are opposite the Manhattan skyscrapers. The counties along the Hudson were settled by the Dutch, and place-names from Staten Island to Rensselaer are echoes of the days when New York was New Netherland, and stocky, vigorous settlers built white frame houses with gambrel roofs in the style which we call Dutch Colonial.

No description of the state, however brief, could leave out Long Island, with its beautiful estates and towns, and fertile truck gardens growing produce for city markets. There is a pleasant and comfortable atmosphere which often gathers about fields well cultivated and clusters of communities, and these Long Island has in good measure. The long sand beaches and dunes proclaim the island's relationship with the Jersey coast to the south.

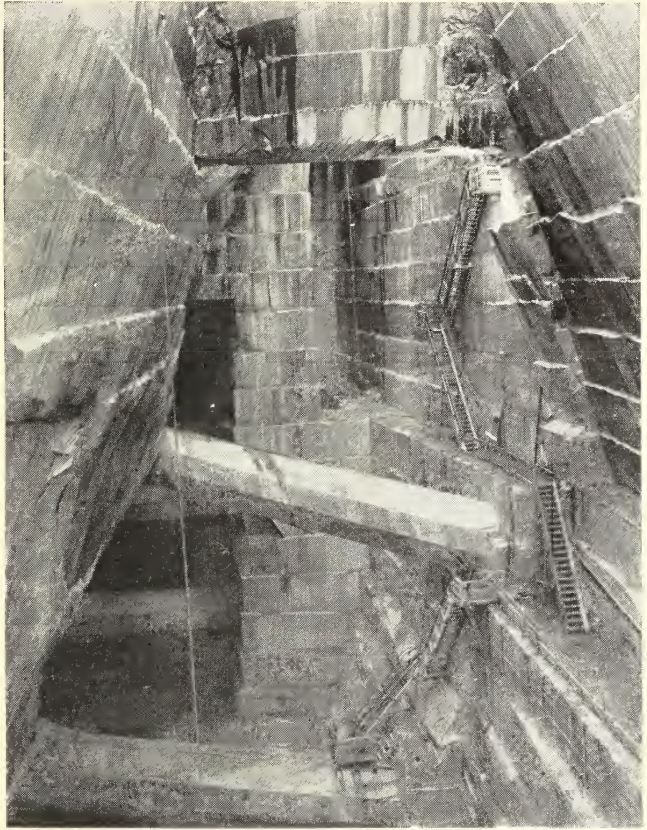
### *The Surface of New Jersey*

One-third of New Jersey is hilly country with parallel mountain ridges walling pleasant valleys and well-kept dairy farms. Factory towns like Paterson and Passaic, with their silk mills, half encircle New York City. But from the Raritan south the land is relatively flat, and literally so on the beaches which barricade the coast. Southern Jersey is all sand, as though it had been raised from under the sea only yesterday, and such, geologically speaking, is the case. How can anything grow in that sandy soil? Many things, such as grass and grain crops, will not, but melons, potatoes, fruits and truck crops will. So will stubborn pines and scrub oaks. Thus the central Jersey landscape is one of flat fields carefully fertilized, cultivated and watered. There are comfortable, beautiful old brick homesteads which date from the seventeenth century, and new, raw-looking communities which are little foreign colonies in themselves—Italian often, or Polish. Farther south are wide stretches of pine woodland where white sandy trails show up distinctly against the dark green foliage. The Jersey which most people know is the shoreline itself, that series of beaches each isolated by its bay or inlet



and by wide, desolate salt marshes. On the beaches the Atlantic breakers pound steadily, and there is good surf bathing by the mile. Consequently this coast is practically one long summer resort. Asbury Park, Seagirt, Barnegat, Beach Haven, Atlantic City, Ocean City, Wildwood, Cape May—every city dweller in the near-by metropolitan districts knows one or all of them. In fact so many people run away from the suffocating heat of Philadelphia and New York that the barrier islands are almost entirely built up with cottages, hotels and board-walks and there are few of the big sand-dunes left.

Away from the sea breezes and the fishy salt smell of inlets, once across the flat truck lands and, finally, the Delaware River, the different character of Pennsylvania landscape is immediately evident. Southeastern Pennsylvania is rolling, hilly, Piedmont country of good soil and many streams. It has been well cultivated for two hundred years, and more than one family still holds land by deeds from William Penn. The Quaker settlers built houses and barns of local sandstone, and developed an architecture known as the Pennsylvania farmhouse type, different from the New England and Dutch Colonial homes, but quite as satisfying to look at. North and west is the belt of country settled by Germans who are often called "Pennsylvania Dutch." These people long kept their racial identity, their customs and their German dialect almost intact. Big stone houses and great red barns painted with white circles and stars are characteristic of the region, which stretches around in a wide quarter-circle from the Maryland line through the to-



Courtesy Vermont Marble Company

#### THE WORLD'S DEEPEST MARBLE QUARRY

Vermont is famous for its fine marble and this quarry at Pittsford has been carried so deep that huge braces of concrete have been built to prevent the side walls from settling in. The picture was taken about halfway down.

bacco fields of Lancaster County to Reading, Bethlehem and the Delaware.

River transportation has helped to concentrate a ring of industrial cities around Philadelphia, and is especially responsible for the shipyards of Camden and Chester, while blast furnaces smoke up the valley of the Schuylkill which leads down from the hard coal fields. One of the country's greatest steel plants is located at South Bethlehem, on the edge of the Appalachian ridge country, where Lehigh Valley coal is easily obtained. Much cement is manufactured in this limestone country, while the biggest slate quarry in the world is near Bangor, above Easton.

Almost all the anthracite coal in the United States is in one relatively small





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**THE DEVIL'S PULPIT** at the jagged tip of Bald Head Cliff is near York, on the coast of southern Maine. The half-severed cliff looks as though someone had tried to chop it in two with a giant butcher's cleaver and resembles the steep rock wall of the side of a quarry from

which great slabs have been cut. There is a strange fascination in the ebb and flow of the water, as hour after hour the blue-green waves roll up ceaselessly, curl, and break foaming on the terraced rock, while the salt spray is flung high and the backwash trickles down.

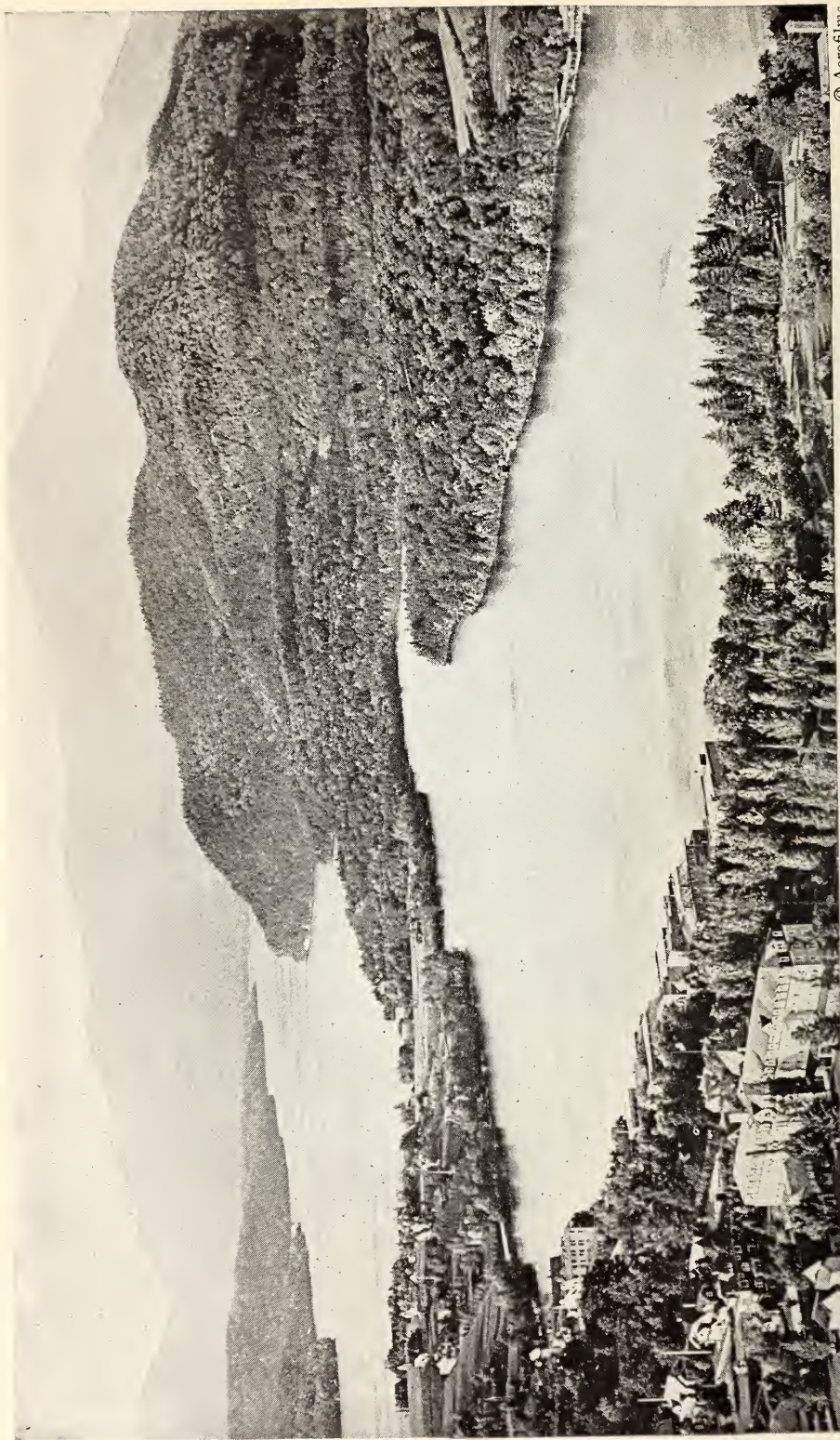




© EWING GALLOWAY

**OVER NIAGARA'S DIZZY BRINK** rush twelve million cubic feet of water every minute; yet even figures like these do not convey a clear impression of these stupendous falls. The rush of green water in the foreground is the American Falls, which are divided by Goat Island from the foaming spray of the much wider Horseshoe Falls on the Canadian side.





© Aerofilms

# UNRIVALED COMBINATION OF MOUNTAIN, LAKE AND FOREST AT LAKE PLACID IN THE HEART OF THE ADIRONDACKS

Gloriously picturesque, the Adirondack Mountains rise in the northeast corner of New York, between Lake Champlain and Lake Ontario, and form part of the Appalachian system. The entire region with the exception of the highest peaks is densely wooded, and lumbering is carried on energetically although the supply of good timber is diminishing through fires and the lack of sufficient reforestation. Lovely lakes nestle among the undulating slopes and offer excellent fishing, and the forests are rich hunting grounds. Lake Placid is a famous Adirondack resort.





Courtesy Daniel Stevens and Company

#### A LONG VIEW ACROSS LAKE GLORIETTE AND THROUGH DIXVILLE NOTCH

Dixville Notch is in the low mountains of northern New Hampshire, not far from the Canadian border, and the stream which winds through it and wears the cut imperceptibly deeper year by year is one of the many tributaries of the Connecticut River. The little lake offers an ideal

location for a summer resort. The inset shows a covered wooden bridge of the kind which may be seen in any part of New England and in parts of Pennsylvania and Delaware as well; bridges of four and five spans were not uncommon at one time, though few are now left.





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**DELAWARE WATER GAP** is the entrance to the Pocono Mountains of Pennsylvania and the beautiful country in the extreme north of New Jersey. The river cuts its way through the Kittatinny Mountains, and divides the two states. As we look south from Winona Cliff outside the

town of Delaware Water Gap, we see the Pennsylvania side (Mt. Minsi) on the right, and the Jersey side (Mt. Tammany) on the left. The famous Pocono country has few lakes, but many streams and waterfalls, and the woods are full of birches, pines and rhododendrons.





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**WHITE HORSE LEDGE** stands out boldly above the smooth waters of Echo Lake, and the scarred cliff looks as peaceful as its reflection. Along the shore an occasional birch trunk gleams whitely through the foliage and the green of the leaves is accentuated by the darker color

of the pines and hemlocks. It is remarkable how the trees can take root in tiny pockets of soil and get a foothold on what looks like bare rock. This Echo Lake is near North Conway, New Hampshire, within the White Mountains and only a few miles from the Maine border.



## FROM MAINE TO MARYLAND

region of northeastern Pennsylvania. Riding up from Philadelphia into the Blue Ridge one comes suddenly to the coal country, with no warning except that the water in the tumbling mountain streams has become black. Green mountains give place to hills of dull black coal dirt, refuse from the "breakers" where the coal is sorted and graded after being hauled from the deep mine shafts. Railroad tracks cover every valley-floor and hug the banks of streams, and loaded freight cars by the mile stand on the sidings, waiting to be made up into trains. Mining towns are unbelievably ugly and endlessly interesting, for the drab houses are filled with a polyglot population from all the corners of Europe.

As abruptly as it begins, the region of coal veins ends, and the hills are beautiful once more. The Susquehanna winds its

shallow way down through the mountainous centre of Pennsylvania, and is joined not far above Harrisburg by the lovely Juniata. The Great Valley of the Appalachians is well marked in Pennsylvania, and here as in other states to the south it is remarkable for its fertility and beauty. West of the mountains begins another great industrial section, and soft coal, oil and natural gas have all contributed to the growth of Pittsburgh, Johnstown, Altoona, Connellsville, Erie and other places where manufacturing is supreme, be the product glass, steel, pig-iron, coke or silk.

The westernmost tip of Maryland belongs in the soft coal country, and it is connected with the eastern part of the state by a narrow strip of land where the Great Valley swings south from Pennsylvania. Eastern Maryland and Delaware belong together geographically, for they



Official Photograph, U. S. Army Air Corps

### WEST POINT FROM THE AIR

This aerial view of the United States Military Academy at West Point, New York, shows how superbly the school is located on the bluffs above the Hudson River, and how attractively the grounds are laid out. The beautiful chapel stands on the hill between the little lake and the smooth parade ground.





Photograph by Orren Jack Turner; inset, photograph by Archie Stout

### THE OLD AND THE NEW AT PRINCETON

Princeton University has come to be one of the best-known educational institutions in the United States, and Nassau Hall was the first building erected. In 1756 it housed the whole college, but to-day it is the central administration building of a large and very beautiful campus. The inset shows one of the newer dormitories, Holder Hall, framed in an archway.

are in a very real sense the product of two rivers, the Susquehanna and the Delaware. The peninsula between Chesapeake Bay on the one side and Delaware Bay and the Atlantic on the other includes all of the state of Delaware and that part of Maryland called the Eastern Shore. The western shore of the Chesapeake is also lowland built up by river silt. This level land is like New Jersey in its fertility for truck crops. Eastern Shore strawberries and Delaware peaches are known for their excellence, and they go far afield. For this is a region of canneries and Baltimore is the largest single canning centre in the United States. The shores of Chesapeake Bay are so indented with small streams that boats can quickly and easily bring the fresh fruits and vegetables across from almost any part of the peninsula. Both the Chesapeake and the Delaware are full of fish and shellfish; the oyster beds are especially valuable, and every spring "Delaware shad" is a phrase full of pleasant meaning in near-by markets.

The factories and shipyards around Wilmington make upper Delaware look very different from lower Delaware and Maryland, where the atmosphere of the South begins to make itself felt. The Mason and Dixon line between Pennsylvania and Maryland was long the boundary between free and slave states, and south of it the Negro population is noticeable outside the cities, which is not the case in the North. Down on the Eastern Shore there are some fine old plantations of the southern type, estates nearly three hundred years old. Thus these two states are on the borderland, the transition ground where the customs and economic organization of the North begin to give way, much as the climate changes to a warmer type as we go south.

The Northeast takes much of its character from the fact that it has been industrialized longer than any other part of the country. The dense population must be fed largely on imported food, and many manufacturing industries are also dependent on raw materials brought from a dis-





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**THE CHEW HOUSE** was in the thick of the Battle of Germantown and saw heavy fighting when the Americans tried to dislodge a detachment of British troops which had occupied it. Germantown was settled by German colonists in 1683, only a year after the founding of Phila-

delphia, and in 1777 it was a substantial village where many prominent men lived. None of its old mansions is more stately than Cliveden, the residence of Chief Justice Chew. To-day it is well within the city limits, and street cars clatter past Cliveden's gate.





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**THE JOHNSTON GATE** is at the west side of Harvard Yard in the heart of the busy university city of Cambridge, Massachusetts. Within the Yard the atmosphere is one of dignity and quiet, and the noise of clanging traffic seems far away. Harvard Hall, behind the

gate, is one of the charming old Georgian buildings which recall the days when Harvard was small; the University has long since spread beyond the limits of the Yard. Radcliffe College is nearby and the Massachusetts Institute of Technology is also located in Cambridge.



## FROM MAINE TO MARYLAND

tance. This indicates the importance of the equipment, the supply of skilled labor, and the financial resources which the region has at its disposal. From the industrial viewpoint—and from the historical also, to some extent—the Northeast is the oldest and best-established part of the country. This has varied results. New York City is the centre of the publishing business, the centre of art interest and of things theatrical, though its leadership in the last respect is less absolute than it once was. Consider also the astonishing number of first-rank educational institutions located in these eleven states: Harvard, Yale, Dartmouth, Smith, Massachusetts Institute of Technology, Mount Holyoke, Wellesley, Brown, Co-

lumbia, Vassar, Cornell, Rochester, Princeton, Rutgers, Pennsylvania, Bryn Mawr, Johns Hopkins, and dozens of others, including many small colleges of the highest grade—an almost endless list. Some of the institutions we have named have first-class professional schools, and there are others, some without university connections. Large provision is also made in special institutions for instruction and practice in the fine arts. The museums in the larger cities of the section to a great extent serve the same ends. The intellectual and æsthetic pleasures of the Northeast are among its finest features, as attractive as the beauty of stream and shore, mountain and sea, inland lake and tidewater bay.

### NORTHEASTERN STATES: FACTS AND FIGURES

STATE	TOTAL AREA (SQ. MILES)	POPULATION (1920)
Maine . . . . .	33,040	768,014
New Hampshire . . . . .	9,341	443,083
Vermont . . . . .	9,564	352,428
Massachusetts . . . . .	8,265	3,852,356
Rhode Island . . . . .	1,248	604,397
Connecticut . . . . .	4,965	1,380,631
New York . . . . .	49,204	10,385,227
New Jersey . . . . .	8,224	3,155,900
Pennsylvania . . . . .	45,126	8,720,017
Delaware . . . . .	2,370	223,003
Maryland . . . . .	12,327	1,449,661

#### PRODUCTION AND INDUSTRY

Although much of the land in the Northeastern states is not suited to agriculture, intensive farming has made some regions highly productive. Truck-farming and fruit-growing are important in New York, New Jersey, Pennsylvania, Delaware and Maryland; New York and Maine are the leading states in production of potatoes. Pennsylvania and New York have large interests in stock-farming and dairying. Over one-half the fish products in the United States (by value) come from the Northeastern states. All the hard coal and about one-third of the soft coal of the United States are mined in Pennsylvania; this state leads in value of mineral products. A number of building materials are quarried; the most important are marble and granite which are found in Vermont, Massachusetts, New Hampshire and Maine. This is the most important manufacturing and shipping section of the country; over 75% of the boots and shoes, wool and worsted goods, and silk goods are produced here; Pennsylvania leads in the production of iron and steel goods and New Jersey

in the refining of petroleum. An enormous volume of goods is imported and exported through the ports in these states. Resort-keeping is an important occupation.

#### IMPORTANT CITIES

Population of state capitals (1920): Augusta, Maine, 14,114; Concord, New Hampshire, 22,167; Montpelier, Vermont, 7,125; Boston, Massachusetts, 799,200 (1928); Providence, Rhode Island, 286,300 (1928); Hartford, Connecticut, 172,300 (1928); Albany, New York, 120,400 (1928); Trenton, New Jersey, 139,000 (1928); Harrisburg, Pennsylvania, 86,900 (1928); Dover, Delaware, 4,042; Annapolis, Maryland, 11,214.

Other important cities with their populations (1928 estimates): New York, New York, 6,017,500; Philadelphia, Pennsylvania, 2,064,200; Baltimore, Maryland, 830,400; Pittsburgh, Pennsylvania, 673,800; Buffalo, New York, 555,800; Newark, New Jersey, 473,600; Rochester, New York, 328,200; Jersey City, New Jersey, 324,700; Syracuse, New York, 199,300; Worcester, Massachusetts, 197,600; New Haven, Connecticut, 187,900; Bridgeport, Connecticut, 160,000; Springfield, Massachusetts, 149,800; Paterson, New Jersey, 144,900; Scranton, Pennsylvania, 144,700; Camden, New Jersey, 135,400; Fall River, Massachusetts, 134,300; Wilmington, Delaware, 128,500; Cambridge, Massachusetts, 125,800; Yonkers, New York, 121,300; New Bedford, Massachusetts, 119,539; Elizabeth, New Jersey, 117,000; Reading, Pennsylvania, 115,400; Lowell, Massachusetts, 110,206; Waterbury, Connecticut, 107,000; Lynn, Massachusetts, 105,500; Utica, New York, 104,200; Somerville, Massachusetts, 102,700.



# FROM VIRGINIA TO TEXAS

## *The Story of the Southern States*

The term Southern states is sometimes applied to all the fifteen states which permitted slavery in 1860, and sometimes is restricted to those which seceded from the Union. Our list is different from either. We have included all the states which seceded, the newer states of West Virginia and Oklahoma, and also Kentucky, fourteen in all. We have treated elsewhere Maryland, Delaware and Missouri, though they were slave-holding states. It is a vast area with great variations of elevation, soil and climate, and can raise many different crops. Within the present century it has become important in manufactures, especially cotton and tobacco, and in the production of minerals, especially petroleum. Some of the states are among the oldest, though one, Oklahoma, is one of the latest admitted to the Union.

**P**ERSONS speaking or writing about the South or the Southern states do not always mean the same thing. Fifteen states still recognized slavery in 1860, though only eleven of these seceded from the Union. Two states, usually classed as southern, have been admitted since 1860, and Missouri, though it recognized slavery, is usually called central. What are the Southern states?

The census applies the word South to three groups: South Atlantic, East South Central and West South Central. We have already mentioned two of the South Atlantic states, Maryland and Delaware, among the Northeastern states, but shall call all the others Southern. Our list then will be Virginia, West Virginia, North Carolina, South Carolina, Georgia and Florida of the South Atlantic states; Kentucky, Tennessee, Alabama and Mississippi, the East South Central; Arkansas, Louisiana, Oklahoma and Texas, the West South Central, fourteen states in all.

The oldest permanent settlements in the United States were made within this area, Spanish St. Augustine and English Jamestown; four of these states, Virginia, the Carolinas, and Georgia were of the Original Thirteen. On the other hand, the territory from which the states west of the Mississippi were made was gained from France and Mexico in the nineteenth century; Florida, East and West, was obtained from Spain; Oklahoma was Indian country until comparatively recently; Texas, after

nine years as an independent republic, was annexed to the Union, but much of it was raw frontier long afterward.

The South is a vast area with many differences in elevation, soil and climate. Texas alone is much larger than all the states we have classed as Northeastern. It is farther from Richmond to Memphis in an adjoining state than from Richmond to Portland, Maine. The distance from Richmond to El Paso is longer than the farthest point in North Dakota. The



GENERAL LEE IN STONE

A pageant of the Confederacy is being carved on the granite face of Stone Mountain near Atlanta. Here the sculptor is working upon the gigantic head of General Lee.





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**THE SWANNANOA** and the French Broad, two clear mountain rivers, come together almost within the city limits of Asheville, North Carolina, the chief city in the famous "Land of the Sky." In this favored region Nature has been lavish of her gifts of beauty and it is difficult

to decide in which season of the year the views are the loveliest. Some would vote for the early summer when the rhododendrons bloom while others would give their verdict for the autumn with its amazing blaze of color. The other seasons also have their strong advocates.





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**LOOKOUT MOUNTAIN** rises above the Tennessee River near the busy city of Chattanooga, Tennessee. On this mountain was fought the "Battle above the Clouds," a part of a general engagement around Chattanooga during the Civil War. The Tennessee is formed by the

junction of the Holston and the French Broad (page 226); it flows southwest into Alabama, thence northward across Tennessee; and finally empties into the Ohio, of which it is the largest tributary. The river is navigable for its whole length during a part of the year.





Courtesy Chattanooga Community Advertising Association

#### A VIEW OF THE TENNESSEE RIVER, NEAR CHATTANOOGA

The Tennessee is the longest tributary of the Ohio. After passing Chattanooga, it flows into Alabama for a short distance and then turns northward across Tennessee and Kentucky. The river is navigable for the greater part of its length. This view is from Brady's Point on Signal Mountain. Chattanooga lies in the background beyond Lookout Mountain.

total area of these fourteen states is 887,420 square miles; and in them live (1928 estimate) 35,941,000 people—white, black and Indian—who differ widely in their attitude toward many questions.

Though there has been comparatively little foreign immigration except from Mexico, the original settlers of the older states were of many nationalities, English, Irish (North and South), Scotch, Welsh, German, French Huguenot and Swiss. The acquisition of the territory beyond the Mississippi brought in many of French and Spanish blood. Some foreigners have come in since the Revolution and there has been considerable migration from other sections, especially into Texas and Oklahoma. Speaking broadly, however, the composition of the population has been little changed.

Most of the physiographic divisions

mentioned in an earlier chapter are represented in these states. The Atlantic-Gulf Coastal Plain extends the whole length of this area, from the Potomac to the Rio Grande, and along the Mississippi stretches northward to the southern tip of Illinois. Florida, Mississippi and Louisiana are altogether within this division. Parts of Virginia, North Carolina, South Carolina, Georgia and Alabama are included in the Piedmont Belt or Plateau. The Appalachian Mountains are west of the Piedmont in all these states and occur also in West Virginia, Kentucky and Tennessee. West Virginia, however, is almost entirely in the Appalachian Plateau, which also covers parts of Kentucky, Tennessee and Alabama. East of the Mississippi the Central Plains dip down through Kentucky and Tennessee into the northern part of Alabama, and to the west of that stream extend through Oklahoma into





Inset: Courtesy Virginia State Chamber of Commerce.

Courtesy Lexington Board of Commerce

### TOBACCO IN THE FIELD AND IN THE WAREHOUSE

North Carolina, Virginia and Kentucky raise and manufacture most of the tobacco produced in the United States. The upper picture shows a field near Winston-Salem, North Carolina; the inset shows a tobacco sale by auction at South Hill, Virginia, while the lower shows the interior of one of the great sales warehouses in Lexington, Kentucky.





**HARPER'S FERRY**, so called from an early settler, Robert Harper, who ran a ferry here before the days of bridges, is famous both for its situation and its history. The town itself is now in West Virginia at the point where the Shenandoah River, flowing northward, and

the Potomac River come together. On the left of the picture the hills are on the Virginia side and on the right, Maryland. The United States arsenal and armory in the town were seized by John Brown in 1859, and during the Civil War the town changed hands a half dozen times.

COURTESY BALTIMORE AND OHIO RAILROAD COMPANY





COURTESY THE SAN ANTONIO ART LEAGUE

TEXAS PLAINS have been pictured here by Audley Dean Nicols at their most attractive time—late spring. They are bare and brown during the long dry summer which in the eastern part of the country belong to spring and fall. But the spring early and late is a gracious

season; delicate grasses and flowers grow abundantly; the air is sweet with the fragrance of the *huasache* and *agave*; every thorny shrub is in leaf. Even the scrubbiest cactus patch boasts amazing magenta and yellow flowers and stems of brave new green.





Courtesy Galveston Chamber of Commerce. Inset © P. R. Verkin, Jr.

### THE HARBOR AND SEAWALL AT GALVESTON

Recent improvements have made Galveston one of the most efficient ports in the world. The thirty-two piers allow room for a hundred vessels at a time. The seawall (inset) extends for more than seven miles along the Gulf of Mexico, protecting the land from the attacks of the sea. Behind it is a boulevard with sidewalks for pedestrians.

Texas. The Great Plains also extend southward into the two states last named. The Ozark-Ouachita Uplands include parts of Arkansas and Oklahoma, while in the extreme west of Texas, the Big Bend country, are the Trans-Pecos Highlands, a semi-arid region of mountains and filled valleys. Other divisions might be made. Texas, for example, is a sort of transition region. Some would separate the Edwards Plateau from the Great Plains, and the Central Basin from the Central Plains, and also call attention to the Central Mineral region, the oldest part of the state, a region of worn-down mountains, rich in minerals.

The section has the highest mountains east of the Rockies, and much low alluvial land little raised above the sea; high plateaus and fertile plains; land where much rain falls, and also land where there is too little for agriculture without irrigation. Southern Florida reaches almost to the tropics, and southern Texas nearly as far.

On the other hand, in the higher Appalachians the vegetation is Alpine, and the climate is delightful. As a matter of fact, summer temperatures in most of the South are seldom so high as they are in Central United States, but the summers are longer, and there is little escape from the heat except along the seacoast and in the Appalachian Highlands.

Many metals and other minerals are found in the section, but only a few can be worked profitably. These few are so profitable, however, that three Southern states are found among the first five in mineral production. During the seventeenth and eighteenth centuries, iron was smelted in the older states, but the discovery of richer deposits elsewhere closed the rude furnaces. Until the discovery of gold in California, North Carolina and Georgia were a source of gold, but to-day few of these mines are worked. There is some iron and much coal through the Appalachian region, and Alabama has be-





COTTON AT TAFT



Photographs by Harvey Patteson

#### TEXAS COTTON ABOUT TO LEAVE THE STATE

Though Texas grows much more cotton than any other state, as yet it manufactures comparatively little. The upper picture shows the open cotton platform at Taft, with the truck depositing bales for shipment. The lower pictures show the bales being loaded at the port of Corpus Christi, which has become an important cotton port.





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**NEW ORLEANS** has not lost the imprint of its first settlers, though those of French blood have long since been outnumbered by those of other nationalities. In the Vieux Carré, or French Quarter, many of the houses are built around a court, and these old gardens, even when they have fallen into dilapidation and decay, retain their distinctive charm.





**CHRIST CHURCH, ALEXANDRIA, VIRGINIA**



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**VIRGINIA CHURCHES** built in colonial days still stand in various sections of the state. Washington was a vestryman of Christ Church, and Robert E. Lee later had a pew. Bruton Parish Church, below, is in Williamsburg. This town is being restored to the general appearance it bore in the spacious days when it was the capital and chief city of Virginia.



come an important coal, iron and steel state. West Virginia and Kentucky also rank high in mineral production because of coal, natural gas and petroleum, and Arkansas has a respectable position due to the same products. Virginia and Tennessee produce coal, Texas and Louisiana furnish much of the world's supply of sulphur, zinc is mined in Oklahoma, and Tennessee and North Carolina produce some copper.

### *Petroleum and Natural Gas*

It is petroleum and natural gas, however, which give the section its high place in mineral values. Texas and Oklahoma lead all other states in the combined values of these two products, and Louisiana also has a considerable production, in addition to the states named in the preceding paragraph. This has been almost entirely a development during the present century.

Many of the states have building stones of good quality. Tennessee and Georgia produce much marble, and North Carolina ranks third in the production of granite. There is much stone suitable for making cement, and Florida is first in phosphate rock. The clay deposits are widely spread, and are considerably worked. Dozens of other minerals are found, and some are worked on a small scale, but these are the most important.

### *The South and Agriculture*

There are millions of acres of land, level enough for agriculture, and the long growing season is favorable to crops. Somewhere or other in the section nearly every crop will grow. The region is the world's great source of cotton, which is the nation's largest single export. Winter wheat, corn, oats, sorghum, tobacco, clover, alfalfa, all the legumes; all the vegetables; nut trees of several sorts; fruits of the temperate zone as apples, peaches, pears and plums and cherries; sub-tropical fruits as oranges, lemons, grapefruit and figs; the small fruits as strawberries and blackberries—all of these are grown somewhere in the South.

Not all of them are grown in sections where they can easily be grown. In the

cotton belt, and in the regions where tobacco flourishes, many of the farmers devote all their attention to one or both of these crops and buy most of their food, just as many of the wheat farmers of the Northwest raise wheat exclusively. If their "money crops" bring a good price they can pay their debts and are satisfied; if the crop is poor or the price is low, they sometimes go hungry. Many farmers in regions where the pasture is fair, or even good, keep few or no cows.

Some of these practices are due to the ignorance or the inertia of the farmers themselves, both white and black, but perhaps more is due to the tenant system, by which so much of the land is cultivated by migratory tenants who not only do not own it, but also have little interest in its improvement.

### *Early Fruits and Vegetables*

The climate gives the section great advantages with certain crops. Early vegetables from the lower Rio Grande or from Florida appear in the markets of northern cities before the snow has gone from the streets. Additional supplies from Georgia, the Carolinas and Virginia follow when seeds in suburban gardens in New England have hardly sprouted. Peaches from Georgia come to market early, to be followed a little later by others from North Carolina or Virginia. Local passenger trains must take the sidings in order that solid trains of refrigerator cars may pass on their way to the northern cities.

The South can raise more cotton than the world is able to buy, in spite of the ravages of the boll weevil. Texas is always first, Mississippi second, with Oklahoma, Alabama and Arkansas contending for the third place. Some cotton is grown in all Southern states except one, North Carolina, Kentucky and Virginia grow two-thirds of the tobacco of the United States. Nearly all the sweet potatoes are grown in the South with Georgia and Texas leading, and peanuts are a southern crop almost exclusively.

At one time, a century or more ago, the older states of the South manufactured in small shops or little factories most of the





Photograph by Hesse, Courtesy Louisville & Nashville R. R.

#### SHIPYARD AT BILOXI, MISSISSIPPI, ON THE GULF OF MEXICO

Biloxi is a historic town which has been under five flags, those of France, Spain, England, the United States, the Confederacy, and the United States again. It was once the capital of the French territory on the Gulf, and a building still standing is believed to be the oldest house west of the

Alleghanies. The chief industry is the catching and packing of sea-food, but the town is also famous as a resort both in summer and winter. Live-oaks "bearded with moss," pines, oleananders, and camphor trees grow down to the very edge of the water.



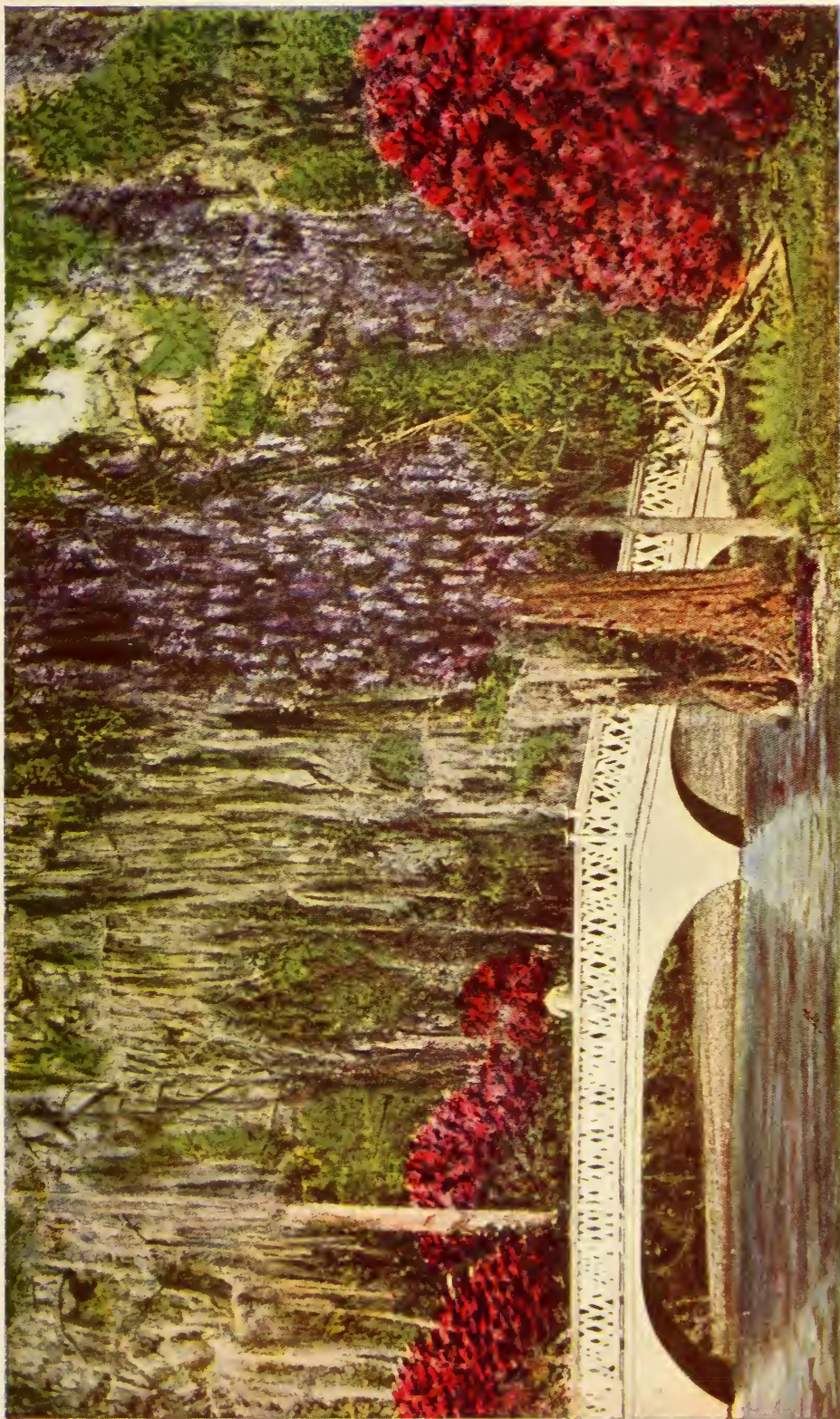


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**BAY SAINT LOUIS** on Mississippi Sound was one of the earliest settlements in Mississippi. Attempts to colonize this section were made soon after 1715. The beauty of the town and the excellence of the white sand beach make it a favorite summer resort; recently it

has become the centre for the economic life of the surrounding country, furnishing a market for fish, oysters, fruits and vegetables. The trestle which is shown at the left is a part of the Louisville and Nashville Railroad which crosses Saint Louis Bay.



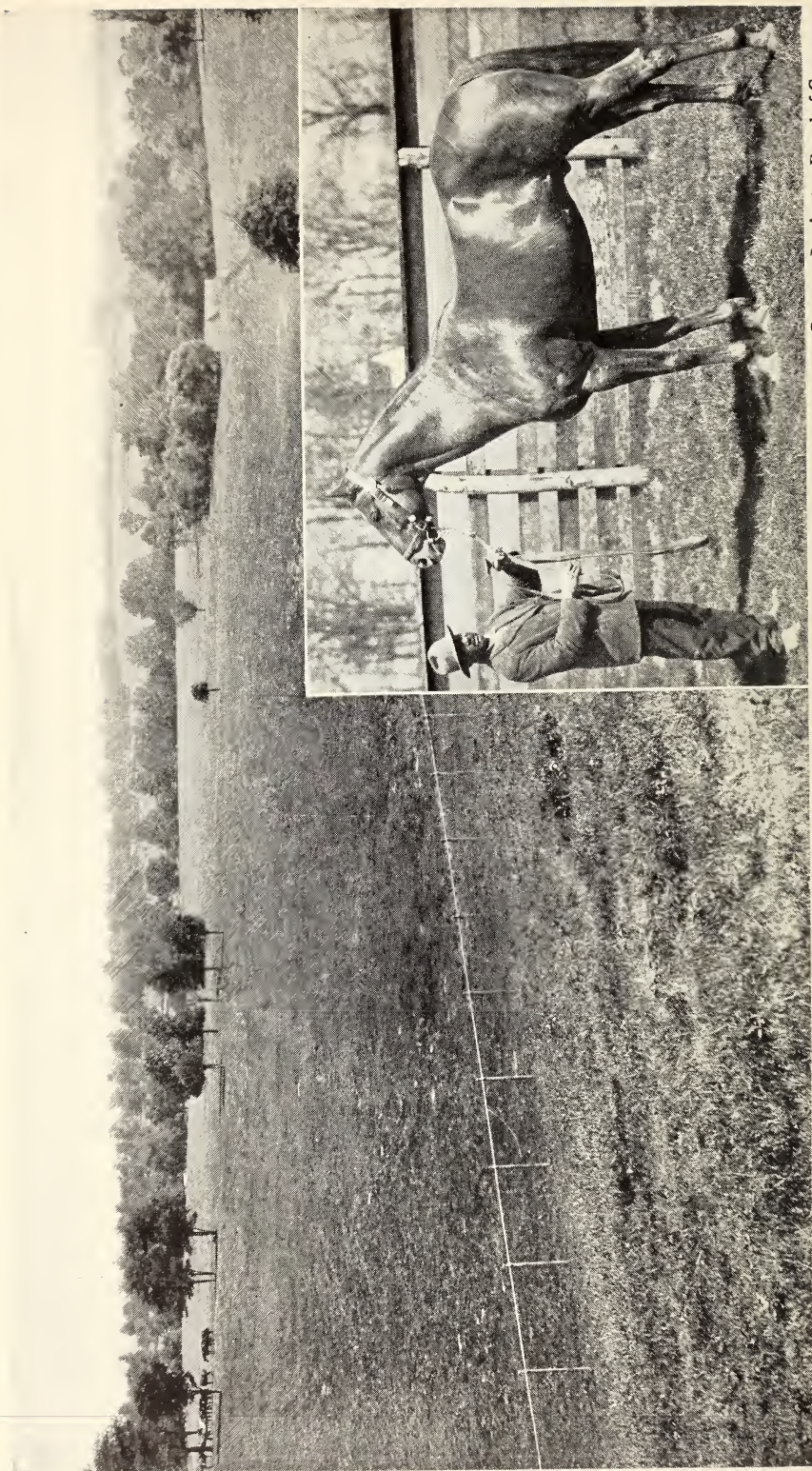


PHOTOGRAPH FROM LANNEAU

**MAGNOLIA GARDENS** are the most widely known of the delightful gardens near Charleston, South Carolina, some of which have been famous for their flowering trees and shrubs since Revolutionary days. Each year many tourists visit the Magnolia Gardens in early spring

when the azaleas flower in great banks of rich, unbroken color and the fine old wistarias bloom; and the winding gateways and moss-hung oaks make this a place of quiet beauty at any season. These gardens are on the Ashley River, twelve miles from Charleston.





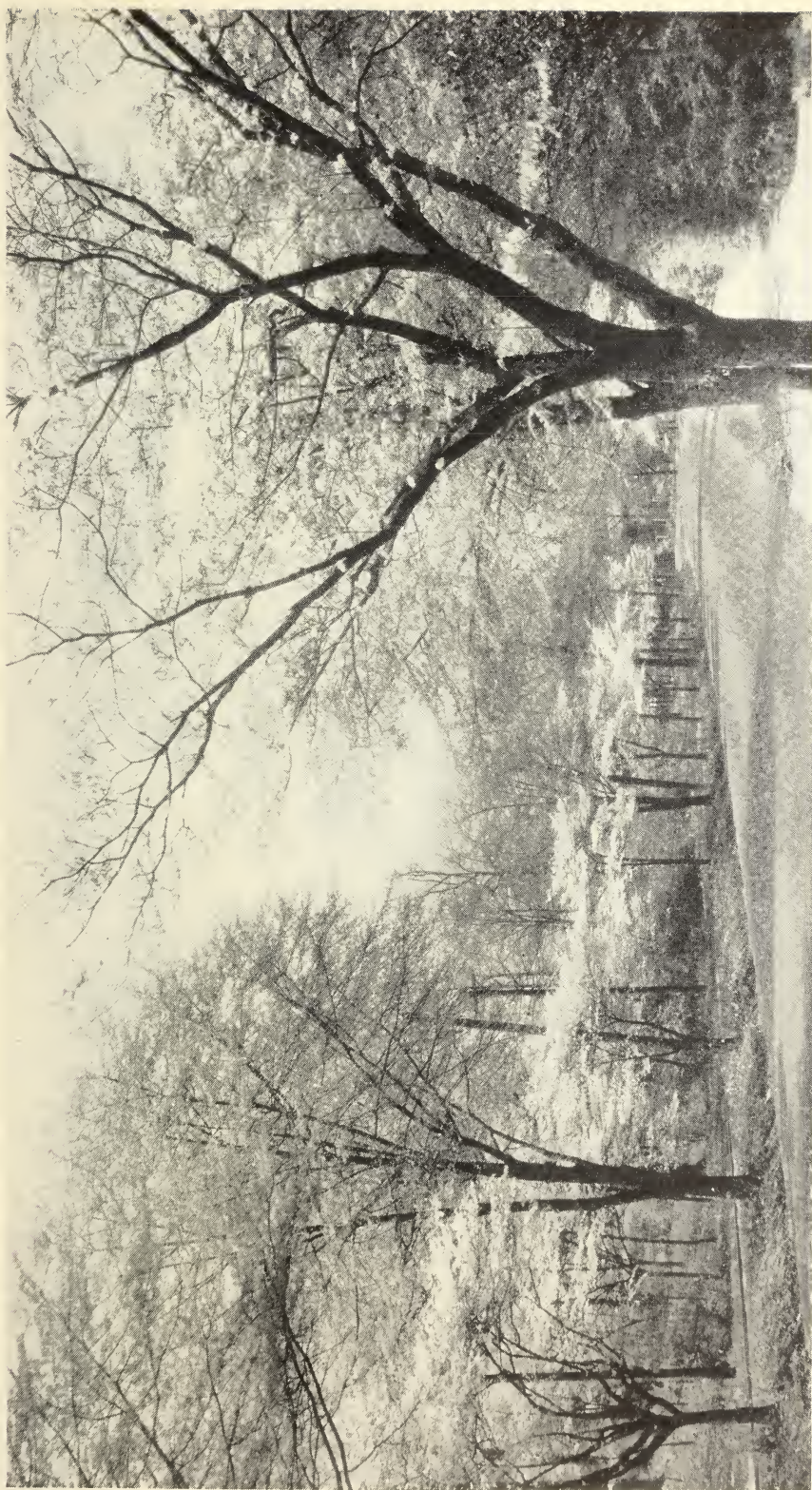
Courtesy Lexington Board of Commerce

### A CHAMPION AT HOME IN THE UNDULATING BLUE GRASS REGION OF KENTUCKY

The famous Blue Grass region of Kentucky is underlaid by limestone, and the luxuriant pastures resemble parks rather than ordinary fields. Some claim that the pastureage furnished is the best in the world, and certainly the region is famous for the number and quality of the thorough-

breeds produced by this comparatively small area, of which Lexington is the centre. The inset shows Man-o'-War, probably one of the greatest thoroughbreds of all time, which after a phenomenal career on the turf, has been retired to pleasant surroundings not far from Lexington.





Photograph by Edgar Orr

#### DOGWOOD IN BLOOM, DRUID HILLS, ATLANTA, GEORGIA

The flowering dogwood so common in the Southern states blooms in early spring before the leaves appear on the trees and the woods in many places are white with the broad blossoms. The tree seldom grows to be very tall. The purple Judas tree and the pink azalea may often be seen in the

same woods. Druid Hills is an attractive residential suburb of Atlanta, and the streets and drives are exceedingly attractive. There are many other suburbs of this growing city which are no less pleasing to the eye, as the residents take much pride in their surroundings.



articles the people needed. As the world's demand for cotton and tobacco increased, more and more attention was given to agriculture, and manufacturing declined, though it was never entirely given up. There were numerous little cotton factories in 1860, many sugar mills, and some factories of other sorts. During the last quarter of the nineteenth century manufactures began to grow. Now there are two states, Texas and North Carolina, each of which reports annually products valued at more than a billion dollars, and the production of several other states is respectable.

### *The Growing Cotton Industry*

The first important industry to develop was the manufacture of cotton. In 1890 New England mills used three times as much cotton as the Southern, but by 1905 the Southern mills had forged ahead, and now they use more than three times as much. Though Massachusetts still has more spindles than any other state, both North Carolina and South Carolina recently have run more spindle hours in a year. This term means that the number of spindles is multiplied by the number of hours they run. Southern mills usually run more hours in a week and most of them have run steadily, while, for several years, many New England mills have not run full time. New England still manufactures a large part of the finer goods, but Southern mills are doing more and more of this class of work, and their total product is worth much more. North Carolina leads in the number of spindles, with South Carolina not far behind. Georgia follows with Alabama in fourth place. Tennessee and Virginia also manufacture considerable cotton. There are many knitting mills, especially in North Carolina and Tennessee. The cotton industry has not taken root in any other Southern state.

### *New Social Problems Appear*

The growth of the textile industry has produced its problems. The operatives, all white and native born, have been drawn from the rural districts, where they were

tenant farmers or small landowners. Removal to the factory village made a great change in their manner of life and there have been difficulties in adjustment. Generally they have been reasonably contented with wages and conditions of work, and there has been little industrial friction. Evidences of discontent have recently appeared in some localities, and apparently the industry in the South is likely to experience the same industrial unrest as England and New England at an earlier period.

The manufacture of cotton is not the only industrial activity. North Carolina now manufactures more tobacco and snuff than any other state, and makes three-fifths of all the cigarettes. Virginia makes another fifth. Florida and Virginia also make cigars. Largely as a result of the tobacco industry North Carolina pays more taxes to the Federal Government than any other state in the Union except New York. In the memory of many men yet living cottonseed were thrown away. Now the products are worth about \$250,000,000 a year. The oil is used for food, and in making soap and candles. Formerly some of it was exported to Europe, there mixed with olive oil, and then crossed the ocean again to be sold as pure olive oil. The meal and hulls are valuable for feeding cattle, and some of the meal is also used in making fertilizer. The refining of petroleum has become an enormous industry in the oil-producing states.

### *The Production of Lumber*

There is considerable timber left in the South. Mississippi, Louisiana, Alabama, Texas, Arkansas, Georgia and North Carolina each produces more lumber than any other state except Washington and Oregon. Some of this is hardwood, but more is pine and cypress. Though most of the lumber is exported, a considerable quantity is taken a step or two farther. High Point is the southern centre of the furniture industry, and there are many other factories scattered through the South. There are several large pulp mills which are increasing their production, but



the industry is not yet important. Turpentine and resin, obtained from the pine, have always been Southern products. Georgia and Florida lead.

There are hundreds of other factories producing scores of articles in the South. One advantage is the recent extensive development of hydro-electric power. The South Atlantic states generate more horse power than any other group, except the Middle Atlantic states, and Kentucky, Tennessee and Alabama also have extensive developments. Georgia and North Carolina develop more hydro-electric power than any other state except New York. The ease with which electric power may be transmitted puts the village on an equality with the city as a site for manufacturing, and is causing the development of many towns rather than a few great cities. It will be noted that these states which have developed large amounts of power are those a considerable portion of whose surface is mountain or plateau. The United States is building in Alabama at Muscle Shoals, on the Tennessee River, an electric plant which is expected to develop 612,000 horse power.

### *The South is Still Rural*

In spite of the many factories, and the great power developments, the South is still rural. No state is "industrial-minded" though a few are becoming so. The largest city in the section ranked seventeenth in 1920, and there were only twelve with a population of over a hundred thousand. No city, with the possible exceptions of Charleston and New Orleans, has ever dominated a state. Even where a state has several cities they are subject politically to the rural population, as in few or no states do the cities have representation in proportion to their population.

This rural population is interesting from many standpoints. Before the Civil War—in the states east of the Mississippi and in Louisiana—the English ideal of life on a country estate was dominant, though as in England the wealthy owner of a plantation might have a city house. Even the professional man who was forced to live

in a city often had a plantation to which he hoped to retire. While, of course, there were cultured and wealthy individuals in the cities, in general it may be said that the city was considered a convenience only, if not, in fact, an evil. Most of the famous Southern mansions were on the plantations, not in the cities. Perhaps New Orleans, Richmond and Charleston might be considered exceptions to this broad statement. Certainly the greater part of the education and culture was to be found in the rural districts.

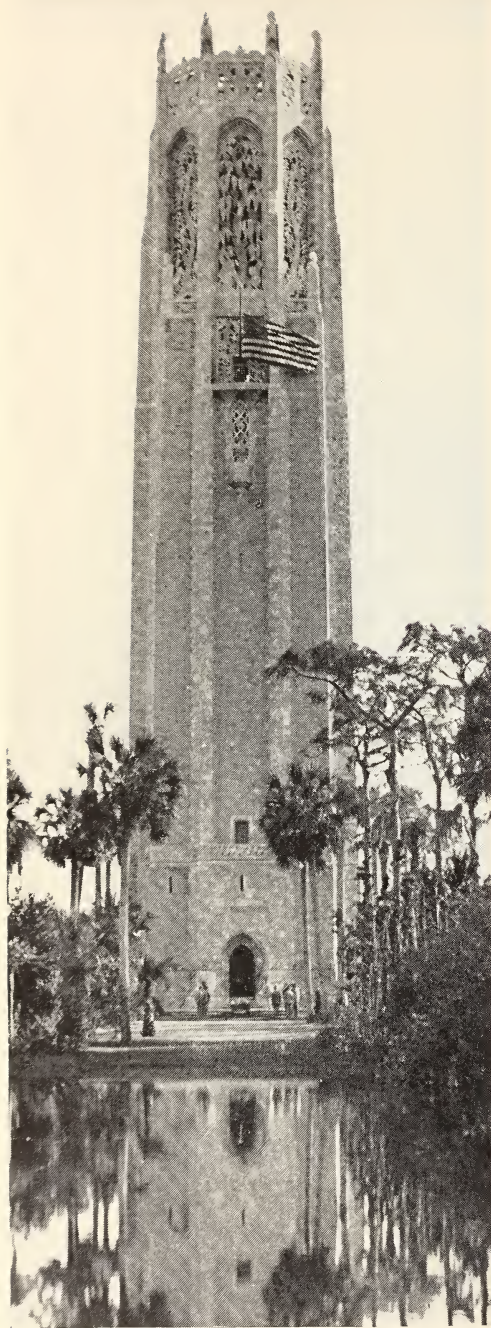
### *The Plantation is Broken Up*

This condition no longer exists. The destruction wrought by Civil War and Reconstruction destroyed the old plantation system, and the families have generally moved to town or city. There never were so many of these plantations or of these people as some suppose, but their removal from the country took away an element of leadership, and they have been followed by many of the more intelligent farmers. Many neighborhoods are much less attractive from the standpoint of culture and intelligence than they were years ago, due to this migration.

### *Problems of the Rural South*

The rural situation is complicated by the presence of the Negro, who must always be considered. After Reconstruction, the people who had not money enough to maintain one efficient public school system felt themselves obliged to maintain two, with the result that neither was even moderately satisfactory. Only slowly has improvement been manifest, and even now the rural and small town schools, as a whole, are less efficient than those in other sections. While more progress has been made in some states than in others, there has been real progress in all, and the amount of illiteracy both black and white has been greatly lessened. Between 1910 and 1920 white illiteracy was reduced about one-third, and Negro illiteracy almost one-fourth. White illiterates ranged from 11.4 per cent in Louisiana to 2.2 per cent in Texas, while Negro illiterates varied between 38.5 per cent in





P. & A. Photos

### THE SINGING TOWER

This superb tower, with its carillon of 71 bells, was built by the famous editor, Edward W. Bok, who is buried here. It is at Iron Mountain, the highest point in Florida.

Louisiana and 12.4 per cent in Oklahoma. The average percentages for the whole population are still higher than in any other section.

Twelve of these fourteen states had slavery in 1860, and there is a considerable proportion of Negroes in all of them, though that proportion is decreasing. Mississippi and South Carolina had a small majority of Negroes in 1920, though it is possible that the next census will tell a different story. In West Virginia and Oklahoma, the proportion is small, but in Louisiana and Alabama it was over 38 per cent. In the section as a whole the proportion was a little less than one-fourth.

The situation has been a difficult one. History records no case precisely similar; that is, of a people of a different race being set free after a bloody war, and then almost immediately being placed on an equality before the law with their former masters. Naturally there was friction, and the "Negro problem" is not yet settled. To discuss it would require a book. It is enough to say that the Negro has survived, has accumulated considerable property, and that many of them order their lives in accordance with the standards of good citizenship. They have separate schools and churches, and are not permitted, even if they should so desire, to mingle socially with the whites. Most of the Negroes are still in the country, but they are sharing in the general desire to move to town. Apparently the relations between the two races are better than formerly, but no one can see the end. Since the World War began large numbers have moved to the North to take the place of the European immigrant.

Reference has already been made to the tenant system which has been the curse of Southern agriculture. While, perhaps, the best system possible when first put into effect after the Civil War, its continuance has been an evil. Though a considerable number of tenants both white and black do manage to purchase land the number of tenants increases as the owners of the land move to town. The tenant is usually a poor farmer interested only in getting a living from the land with as little work





THE CASINO AND A STRETCH OF SUNNY BATHING BEACH



THE COCONUT GROVE OF THE ROYAL POINCIANA HOTEL



Courtesy Florida East Coast Railway

#### HEALTH AND PLEASURE AT GREATER PALM BEACH

The development of the East Coast was the dream of Henry M. Flagler. Palm Beach is on a narrow island, and is separated from West Palm Beach by Lake Worth, an arm of the sea. The Casino and the Royal Poinciana Hotel are at Palm Beach, the fashionable winter resort in southern Florida. The view below shows West Palm Beach seen across Lake Worth.





Photograph by R. H. LeSesne

Courtesy Florida East Coast Railway

### WATCHING THE TRAIN THAT GOES TO SEA

From the southern tip of Florida a long succession of islands (called keys) extends in a south-westerly direction. Over and between these keys the Florida East Coast Railway has built a track to Key West, about 125 miles. The picture shows the Long Key Viaduct extending southward from Long Key. The inset shows happy bathers at Daytona Beach.

as possible. The result is seldom satisfactory to either landlord or tenant. Since the tenant moves often, usually about January 1, the school attendance of his children is broken and their progress is impeded. On the other hand, there is much good farming in the South, and it is also true that the general standard is rising.

One cause of the backwardness of the rural population in some states has been the isolation caused by roads which were almost impassable in winter. While many roads are still unimproved there has been a wonderful change within ten years. All of the states are building hard roads as rapidly as they can find the means, and some states are already covered by a network of cement roads. Thousands of automobilists now tour the South every winter without difficulty.

The schools in the towns and cities are generally good, and some invite comparison with those of any other section, in buildings, standards of instruction, and qualifications of the teachers. There is

more property to tax in the towns and cities, and in some cities the citizens have voted heavy rates for school purposes.

Some of the oldest colleges and universities in the country are in the South. The College of William and Mary at Williamsburg, Virginia, was founded (1693) next after Harvard, and the University of North Carolina was the first state university to begin operation, graduating the first class in 1795. Thomas Jefferson wore with pride the title "Father of the University of Virginia." Every state has a state university, and while not all are real universities, some are recognized as first-class institutions in every respect. Private philanthropy has established other universities, some under the auspices of a church and others independent. Duke University at Durham, North Carolina, through the will of the tobacco and power magnate, James B. Duke, is one of the best endowed institutions in America with imposing buildings, admirably equipped. Rice Institute in Houston, Texas, is an-





Photograph by R. H. LeSesne, Courtesy Florida East Coast Railway

### THE WONDERFUL BEACHES ALONG THE EAST COAST OF FLORIDA

Many of the beaches of East Florida at low tide are as smooth and hard as a floor. The famous Ormond-Daytona beach is twenty-five miles long and 300 feet wide, and is so hard that motor races have often been held upon it. The left inset shows Major H. O. D. Seagrave in his Mystery

S which made the almost incredible speed for the course of 203 miles an hour. The right inset shows a thrilling race which was held on Biscayne Bay, Miami Beach, between an aeroplane and the motor speed boat Garwood, driven by its designer, Gar Wood.



other institution amply endowed by a millionaire which has high standards.

There are scores of denominational colleges, too many perhaps. In some cases a denomination has established several colleges in the same state. Many do excellent work, but others are handicapped by the lack of sufficient funds. Some of these have voluntarily dropped into the class of junior colleges.

It has been mentioned that there were only twelve cities above a hundred thousand population in 1920. In 1928 the census estimates showed seven more, and Savannah, Georgia, was just under the mark. Texas had five cities of this size, due in some measure to the great development of the oil industry. Tennessee has three, and Florida the same number. No other state has more than two. Oklahoma, with no city of this size in 1920, has two, Oklahoma City and Tulsa, both the result of oil. The rapid development of Florida

as a winter home is responsible for the large increase in Jacksonville, Miami and Tampa. On the other hand, North Carolina, Mississippi, and Arkansas have no city of such size.

The tourist industry is becoming important in the South. All through the Appalachian country there are excellent hotels, which attract visitors from the South in summer, and from the North in winter. Asheville has become famous as having some of the finest resort hotels to be found anywhere. The "sandhill country" of North and South Carolina attract many winter visitors, and Georgia also gets its share. Florida attracts increasing numbers of winter residents, and many have established permanent homes. Miami, Palm Beach, Tampa, St. Petersburg and a dozen other towns are known everywhere. All along the Gulf of Mexico there are winter colonies, and New Orleans has always attracted many visitors.

#### THE SOUTHERN STATES: FACTS AND FIGURES

STATE	TOTAL AREA (SQ. MILES)	POPULATION 1920 CENSUS
Virginia . . .	42,627	2,309,187
West Virginia . . .	24,170	1,463,701
Kentucky . . .	40,598	2,416,630
Tennessee . . .	42,022	2,337,885
North Carolina . . .	52,426	2,550,123
South Carolina . . .	30,980	1,683,724
Georgia . . .	59,265	2,895,832
Florida . . .	58,666	968,470
Alabama . . .	51,908	2,348,174
Mississippi . . .	46,865	1,700,618
Arkansas . . .	53,335	1,752,204
Louisiana . . .	48,506	1,708,509
Oklahoma . . .	70,057	2,028,283
Texas . . .	265,896	4,663,228

cattle and sheep. Rich forest and mineral resources. Among the mineral products are petroleum (one-third of world's supply is found in Texas, Oklahoma and Louisiana), iron ore and coking coal, sulphur (Louisiana and Texas), bituminous coal (West Virginia), bauxite and a variety of building materials.

#### IMPORTANT CITIES

Population of state capitals (1920): Richmond, Virginia, 104,400 (1928); Charleston, West Virginia, 39,608; Frankfort, Kentucky, 9,805; Nashville, Tennessee, 139,600 (1928); Raleigh, North Carolina, 24,418; Columbia, South Carolina, 37,524; Atlanta, Georgia, 255,100 (1928); Tallahassee, Florida, 5,637; Montgomery, Alabama, 43,464; Jackson, Mississippi, 22,817; Little Rock, Arkansas, 65,142; Baton Rouge, Louisiana, 21,782; Oklahoma City, Oklahoma, 160,000 (1928); Austin, Texas, 34,876.

Other important cities and their population (1928 estimates): New Orleans, Louisiana, 429,400; Louisville, Kentucky, 320,400; Houston, Texas, 275,000; Birmingham, Alabama, 222,400; San Antonio, Texas, 218,100; Dallas, Texas, 217,800; Memphis, Tennessee, 190,200; Norfolk, Virginia, 184,200; Fort Worth, Texas, 170,600; Tulsa, Oklahoma, 170,500; Miami, Florida, 156,700; Jacksonville, Florida, 140,700; El Paso, Texas, 117,800; Tampa, Florida, 113,400; Knoxville, Tennessee, 105,400; Savannah, Georgia, 99,900; Charlotte, North Carolina, 82,100; Shreveport, Louisiana, 81,300; Winston-Salem, North Carolina, 80,000; Charleston, South Carolina, 75,900.

#### PRODUCTION AND INDUSTRY

Agriculture is the most important occupation in all of the Southern states except West Virginia. The extent of the area with its variety of soil, climate and rainfall makes it possible to grow many temperate and semi-tropical crops. The most important crops are cotton (these states furnish over one-half of the world's supply), tobacco (North Carolina, Kentucky, Virginia, South Carolina and Georgia furnish over 80% of U. S. supply) and sugar-cane (Louisiana). The South Atlantic and Gulf Coast states produce quantities of early vegetables, Virginia raises large quantities of apples, North Carolina and Georgia, peaches, Florida and Texas, citrus fruits. Dairying has become important in these states; one-third of dairy cattle of the United States are now found here; Texas raises many beef



# STATES OF LAKE AND PLAIN

## *Farms, Mines and Mills of the North Central States*

The twelve North Central states, commonly known as the Middle West, lie chiefly in the level or rolling prairies of the Central Plains, though they verge to the north into the wooded, lake-dotted Superior Highlands and in southern Missouri into the Ozark Mountains. Here lie the great corn and wheat belts, a fine dairy region, rich mines and progressive manufacturing cities. The total area, comprising about a quarter that of the continental United States, supports nearly one-third of the population, produces more than a third of the crop values and contains nine of the twenty-five largest cities. It is a region largely of one-man farms, served by exceptional rail and water transportation facilities and of such manufactures as meat-packing, flour-milling and in particular, the making of automobiles and farm machinery. The people are hardy, industrious, keen to secure education. The climate is one of moderate rainfall, stimulating cold winters and of the hot summers so beneficial to the staple crops grown in the region.

THE territory we are classing as the North Central states—popularly known as the Middle West and latterly, sometimes, as the Midlands—includes the two groups of states called in the United States Census the East North Central and the West North Central states. These twelve states have a total area of 766,484 square miles. The East North Central states are Ohio, Indiana, Illinois, Michigan and Wisconsin; and the West North Central states are Minnesota, Iowa, Missouri, Kansas, Nebraska, South Dakota and North Dakota. The total area is about a quarter that of continental United States.

There were, in 1920, nearly 35,000,000 people in the Middle West, 87.5 to the square mile in the East North Central states and 24.6 in the Western division as contrasted to 35.5 per square mile for the United States as a whole and 222.6 for the Middle Atlantic states. The East North Central states have more than three times the density of population found in the West North Central states.

The population is overwhelmingly white, and over four-fifths native born. The remainder come chiefly from northern Europe, Missouri, Ohio and Illinois, however, have a considerable Negro population and the Dakotas and Minnesota have considerable numbers of Indians. Of the foreign-born white population, more than half the Scandinavians are in

these states, but the largest single foreign element is the German, though there are many Poles in the eastern division. Every nation in Europe is represented however. As immigrants began to come many years ago the number born of foreign parents is greater than the foreign-born.

The Central Plains cover most of the region. There is, however, a border of Superior Highlands in upper Wisconsin and Minnesota, a lovely region of woods and lakes, a bit of the Appalachian Plateau in eastern Ohio, and the Ozark Plateau covers a large part of southern Missouri. Down the centre of this group of states flows the mighty Mississippi, "Father of Waters." Its great tributaries are the busy Ohio and the muddy Missouri—which is almost as long as the larger stream. Between the Missouri and the Mississippi lies Iowa, the champion corn state, in the heart of the Corn Belt that extends from Ohio to western Nebraska in a great east-to-west ellipse. Here the smooth fertile soil left by the last ice-sheet, the five months of summer sunshine with warm nights and the occasional thunder-showers, make ideal growing conditions for that cereal native to American soil which the Indians taught the first white settlers to cultivate. As hogs require grain, these animals are the natural complement to the cornfields; and indeed much of that crop goes to feed the hogs and but one-tenth is used for human food.



## STATES OF LAKE AND PLAIN

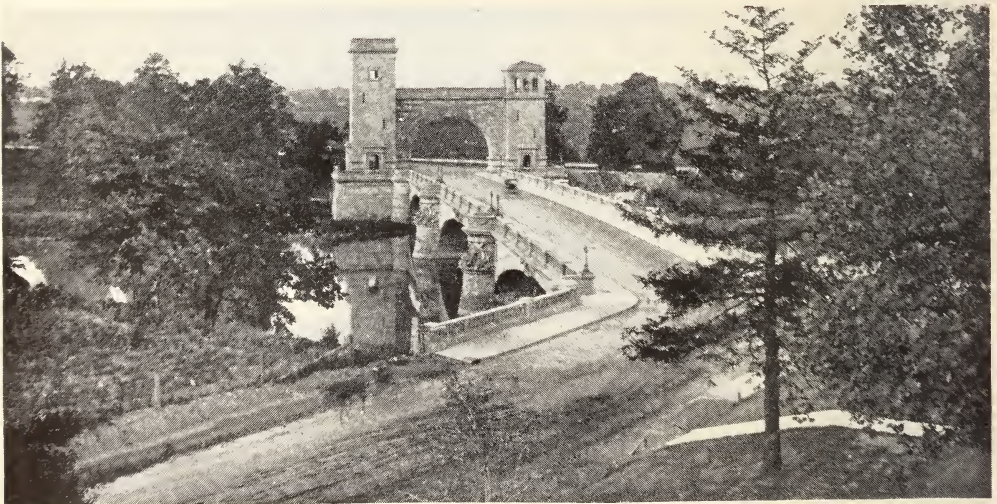
North of the Corn Belt around the Great Lakes is a strip of country that depends heavily on hay and dairying. There are two huge wheat-growing areas, the northern devoted to spring wheat, the southern to winter wheat which is planted in the fall. Of course the farms of these several outstanding regions are not confined entirely to the produce named. A certain amount of general farming is the rule and portions of Michigan, tempered by the Lakes, specialize in peaches and other fruit. Some timber still remains of the forests that once covered the northern fringes of these states and other areas, such as the Ohio Valley.

There is, finally, a region rich in minerals which, for this reason—coupled with the ease of transportation by water and by the straight-laid rails of the prairie country—has become a great manufacturing region. The lower lake region, with an accessible supply of metals, coal and wood, has indeed become the heart of the automobile industry and a centre for the manufacture of farm machinery.

Before we quote figures to show the immensity of both farming and manufacturing in this rich region, let us see what kind of people have settled here. Because

of early exploration the French claimed the Mississippi Valley and hoped to keep the English east of the Alleghanies. After years of conflict with Indian allies on both sides, England won, though traces of French occupancy still persist. Most of the territory of the West North Central states was included in the Louisiana Purchase which came to the United States from France in 1803.

Before the Revolution had ended hardy pioneers had made their way into the region, and the migration from the East and the Southeast grew during the early years of the republic until it became a flood. Tired of the attempt to wrest a living from the stony soil of New England, thousands made their way to the fertile lands beyond the Ohio. Later other thousands of Southerners sought greater opportunities in the West. Some loaded all their household goods into wagons and made the long trek. Others came by way of the Erie Canal after it was opened; still others reached the Ohio and floated down until they came to their destination. Later the foreign-born came—chiefly Germans and Scandinavians at first—until now these states form a cross section of the United States of to-day.



**THE EMRICHSVILLE BRIDGE, ON ONE OF THE BOULEVARDS OF INDIANAPOLIS**

The capital of the Hoosier state, a city that lies within sixty miles of the centre of population of the United States, has a park system composed of twenty-five municipal parks connected by boulevards that include a lengthy motor speedway. There are several country clubs and convention auditoriums. Indianapolis was the home of James Whitcomb Riley.





Courtesy Indianapolis Chamber of Commerce

# **CENTRAL SHRINE OF THE INDIANA WORLD WAR MEMORIAL AT INDIANAPOLIS**

Just north of the lofty Indiana Soldiers' and Sailors' Monument is being constructed the Indiana World War Memorial Plaza, which will occupy five downtown blocks, running from the Federal Building to the Public Library. This monumental structure, costing approximately ten million dollars, will be the national headquarters of the American Legion.

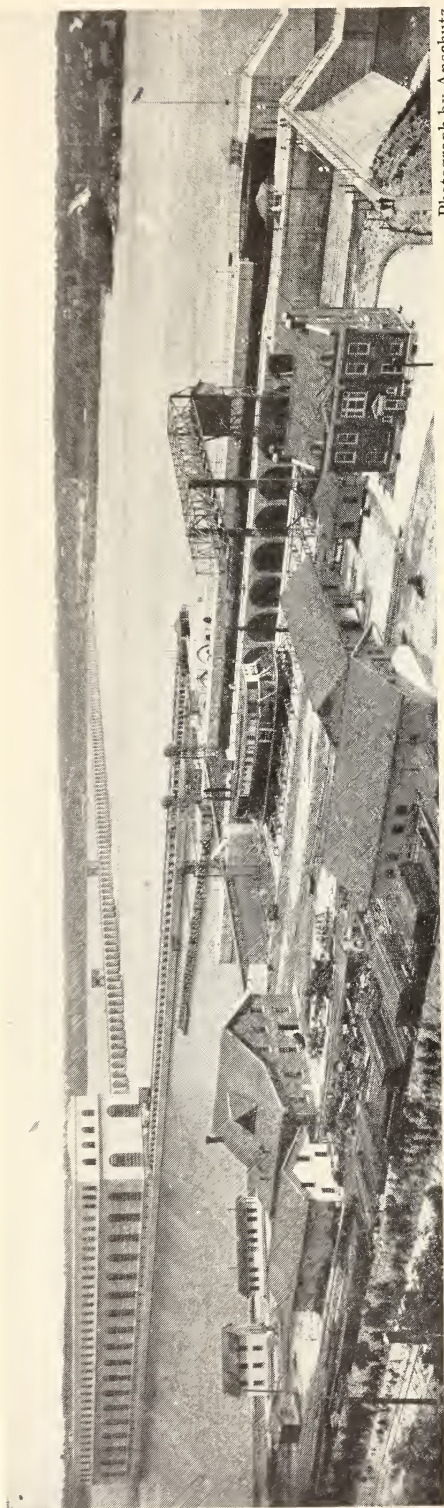


Photographs © Ewing Galloway

## **A SHADY STREET IN TOLEDO, OHIO—POST OFFICE AND ART MUSEUM**

Ohio was once almost covered with trees but, as elsewhere, most of them have been cut down. In cities and towns many shade trees have been planted and have often made rapid growth. Toledo is a busy city, and one of the chief centres in the manufacture of automobile tires. On the left is the Post Office; the Art Museum appears above.





Photograph by Anschutz

#### THE KEOKUK DAM AT THE FOOT OF THE CANAL AROUND THE DES MOINES RAPIDS, IOWA

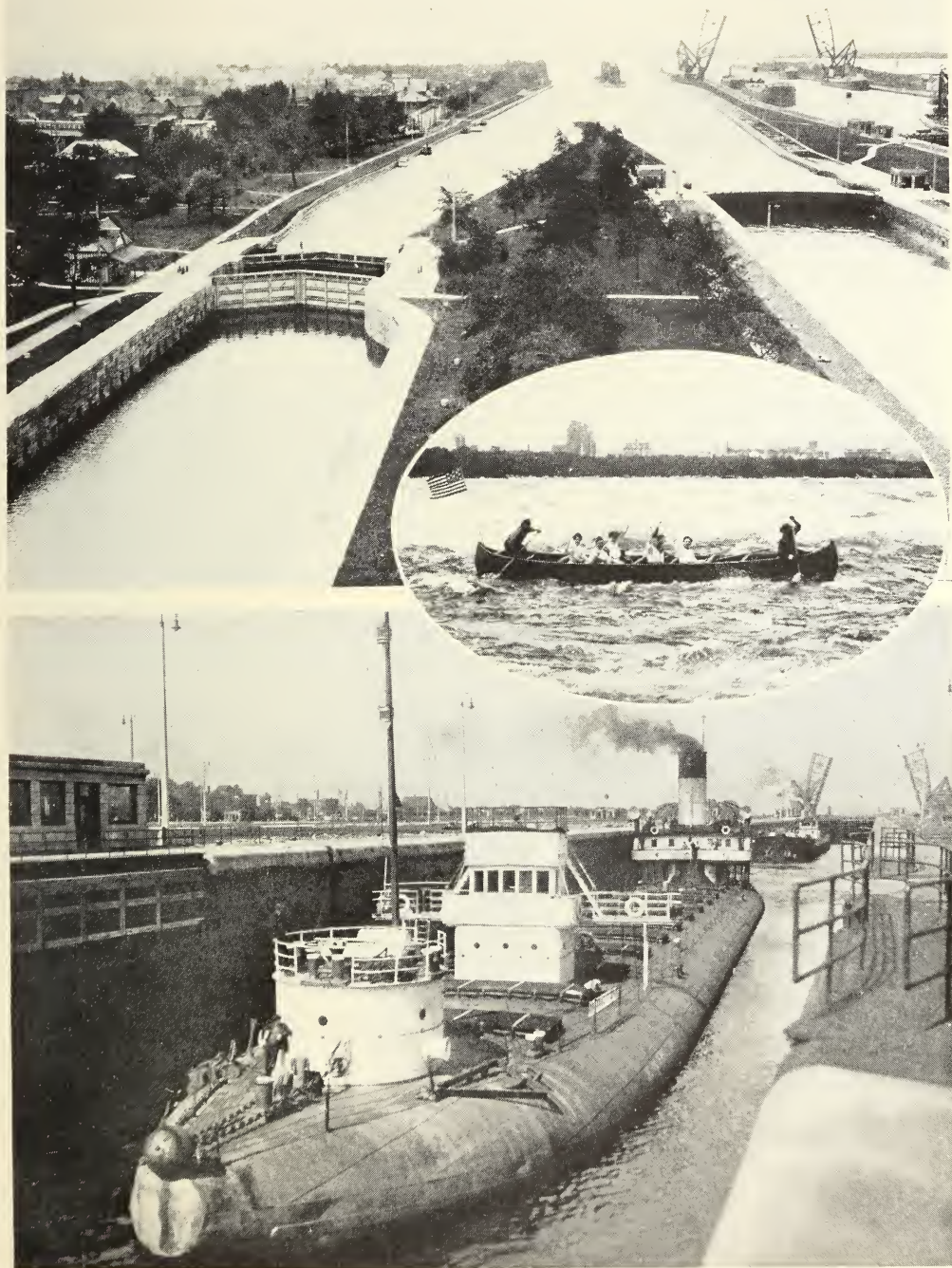
The Federal Government built the first lock of the Mississippi River, miles from Gulf water. This dam, a mile and a half long, was constructed primarily as part of a great hydroelectric power project. completed in 1913, with a lift of forty-one feet, at Keokuk, Iowa, 1,461

With characteristic energy the settlers of these Midlands have converted them into a region of fertile farms and progressive cities. Over the generally sticky soil, motor highways have been laid; and the farmhouse is now often equipped with such comforts and conveniences as electric lights and labor-saving devices, telephones, radios and automobiles. Occasionally farmers even own aeroplanes in which to go on pleasure trips. The region has its own charm of sparkling white winters, summers of goldenrod, wild roses and black-eyed Susans, autumns—in the hardwood regions—of gorgeous red and yellow foliage, of ripening grapes, and, later, hazelnuts, hickory-nuts and black walnuts. There are still deer near the Canadian border, and the early settlers used to be able to shoot prairie chickens on the plains.

The twelve states under consideration are all important agriculturally, those with extensive mines and manufactures less so than the others, however. The state with the greatest percentage of farms is Iowa, and of approximately 33,000,000 acres of farmland, about 22,000,000 are sown to cultivated crops, chiefly corn and oats. But the state also has an active livestock industry. There were, in 1926, the largest number of swine, 10,650,000, and 3,720,000 cattle—more than in any other state except Texas.

Half a century ago the typical farm, nearly self-sufficient with its mixed crops and home manufacture of butter, bacon, clothing and other necessities, was laboriously cultivated by human labor, chiefly that of the immediate family. To-day the larger corn-grower, with his tractor and four-row planter, has been known to cover as much as forty-six acres a day, and with a four-row cultivator he can often cultivate sixty-five acres in a ten-hour working day. In the old days he could harvest only one or two acres of corn a day. Now that he has a corn-picker and husker operated by tractor, he can gather eight to ten acres a day. This complicated machinery not only appreciably reduces the need of human labor on the farms, releasing large num-



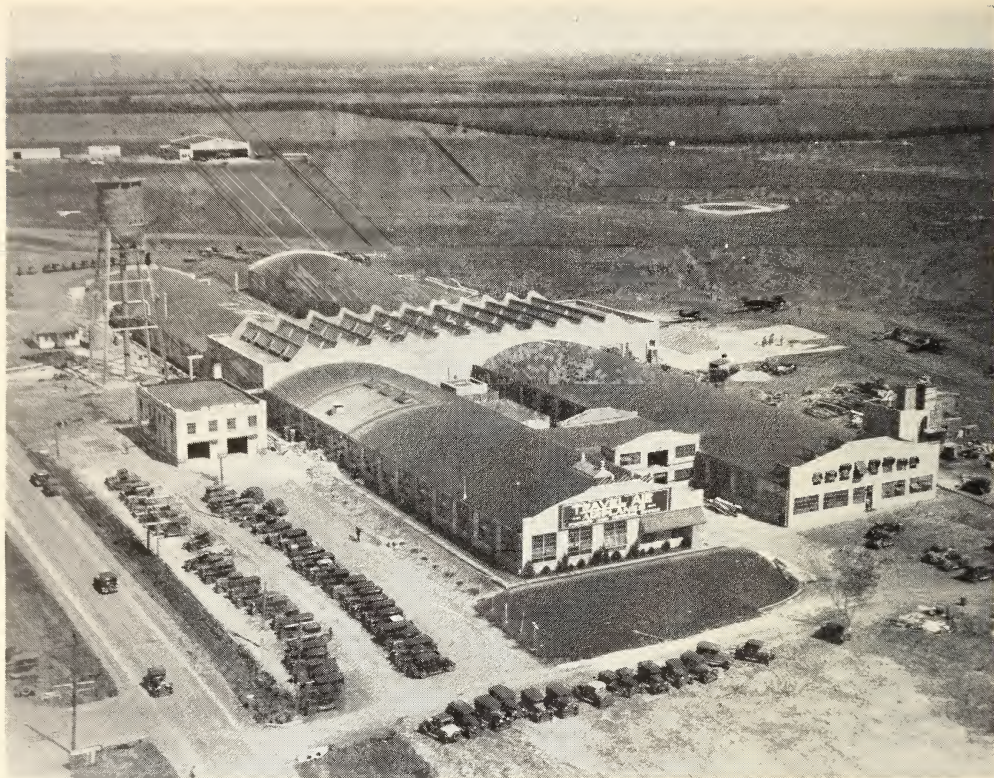


Photographs by A. E. Young; inset © Youngford & Rhoades

# LOCKS IN "SOO" CANAL, WHALEBACK IN SABIN LOCK, AND ST. MARY'S RIVER

Along St. Mary's River, which connects Lakes Erie and Superior, are the Sault Ste. Marie locks, often called the "Soo," which accommodate the largest lake ships. The aeroplane view above is that of Wietzel and Poe locks, that below is a whaleback leaving Sabin lock, while the inset pictures the shooting of the rapids in St. Mary's River.





Courtesy Wichita Chamber of Commerce

#### WICHITA'S MANUFACTURING IS CONCERNED WITH AERONAUTICS

Fully a quarter of all the commercial aircraft built in the United States in 1928 were made in Wichita, Kansas. The city's location, almost midway of the New York to Los Angeles air route, coupled with its level surroundings, have combined to make it the seat of half a dozen flying schools, eighteen aeroplane factories and eleven airports.

bers of young people—who tend to go to the cities—but it very greatly reduces the cost of harvesting the mammoth crops after the initial investment in such machinery has been met. The figures that will shortly follow show the extraordinary quantities of grain produced.

One even hears of an occasional woman farmer, as, for instance, a large wheat farmer of western Kansas who harvests her 4,500 acres by hiring employees in three eight-hour shifts. These men operate seven combines, each of which cuts a twenty-four-foot swath, while at night they hitch the tractors to plows and turn the stubble under. Meals are served from a commissary car that follows the tractors. Of course there are many smaller farms which employ simpler machinery. The typical farm is said to be that operated by one farmer, his sons and

a hired man. However, in rush seasons, plowing is often done at night.

The North Central states, taken as a whole, produce two-thirds of the corn crop, the same proportion of the wheat crop, three-quarters of the oats and over three-fifths of the barley.

Where corn and wheat do not grow so well, hay and dairy animals thrive. The North Central states produce over two-thirds of the butter made in factories in the United States and about the same proportion of the butter made on farms. Wisconsin leads the country in cheese production, making more than half of all produced.

Kansas City (neighbor to Independence, Missouri, which was once the terminal of the Santa Fe cattle trail) has an important packing-house industry. At the present time Kansas does slaughter-



## STATES OF LAKE AND PLAIN

ing to the value of nearly \$250,000,000 annually. (She has almost equal numbers of swine and non-dairy cattle, besides a few sheep.) But the products of the meat-packing establishments in Illinois (chiefly in Chicago) are worth much more. Chicago's packing-plants have, in fact, played an appreciable part in making that city the commercial capital of the North Central states.

Chicago is the world's largest food-distributing centre. The refrigerator-car made it possible for Chicago to slaughter and pack meat for the world. It has an entire section known as Packing Town with a square mile of stockyards. Milwaukee has been likened to a miniature Chicago. When Michigan lumber was plentiful, Grand Rapids and Saginaw started as sawmill towns and later became centres for the manufacture of furniture. Certain firms of the region have even gone so far as to devise knock-down furniture which may be shipped flat and knock-down garages and houses made in sections which may readily be put together. These, like the clothing and other products of the big Mid-Western mail-

order houses, may be sent to remote regions by rail or water. It is part of the reason why the words standardization and efficiency have come to be applied to things American.

It has been said that the lower lake region started as "a Yankee outpost of New England." This region, with its cheap water transportation, its wool and metal, has become the heart of the automobile industry. Since the turn of the century this has been perhaps the chief element in quadrupling the population of Detroit, as well as greatly stimulating the growth of Flint, Lansing, Toledo, Cleveland and Akron. The last three are tire centres. Cleveland and other cities along the south shore of Lake Erie, where coal and iron ore meet, manufacture machinery on a large scale.

Ease of transportation, whether by water or by rail, has been an important factor in the growth of St. Louis. The nearness of the wheat to be milled or stored for shipment has helped make Minneapolis, Milwaukee, Indianapolis and Kansas City, and has formed one of many factors in the growth of Chicago—



Photograph from St. Louis News Service

Photograph by W. C. Persons

### BEAR PITS OF THE ZOO IN FOREST PARK, ST. LOUIS, MISSOURI

The bears, confined on three sides by this rocky formation, a reproduction of the limestone bluffs along the Mississippi River, are prevented from strolling out among the spectators on the open side by a wide moat protected by a grassy bank which conceals a shelved arrangement underneath, which the bears could not scale, even should they swim the moat.





National Photo Company

#### COLD WATER CANYON, WISCONSIN

Here the Wisconsin River has carved, in the Dells at Kilbourne, a passage between limestone cliffs where air and water are icy on the hottest day.

now second in size only to New York City. Chicago is a huge transportation centre and has many miles of belt line rails for shifting freight from road to road; also a distribution centre, distributing by mail-order houses as well as by rail and lake steamer. It is convenient to the grain regions, and its constant need for manufactured goods has kept the freight carriers often two abreast—loaded on their return trips. The Great

Lakes now form one navigation unit, thanks to the canals. Great six-hundred-foot freight boats are so constructed that they can negotiate canals, locks and artificial channels; and there are, besides the freighters, fine passenger steamers. Chutes and gigantic scoops make loading and unloading possible with incredible rapidity; iron ore thunders, steel clangs, lumber echoes, cattle bellow, soft coal smoke billows and the mingled odors of all these activities combine to give an impression as different as possible from the papery rustle of the cornfields and the sunny peace of the waving wheat, or the lake region of the vacation seeker.

The upper lake region was once high mountains but was worn down by streams and weather almost to a plain, with hills of harder rock which contain lodes of iron and copper. Lakes are abundant in the ice-formed basins. Minnesota has 11,000 such lakes, Michigan 4,000 and Wisconsin 2,000. Unfortunately there is considerable adjacent territory covered by muskeg, swamp and rock. The forests, chiefly pine and spruce, maple and hemlock, once attracted eastern lumbermen and upper Michigan, Wisconsin and Minnesota successively led in lumber production, the work of which the deep snows facilitated. But so thoroughly has the timber crop been reaped without replanting that now it is almost too late for a policy of conservation, and in many places nothing but jack-pine will grow. Wisconsin, however, still supplies an important paper industry.



#### A SHOW BOAT ON THE MISSISSIPPI RIVER AT BURLINGTON, IOWA

Show boats and house boats, as well as freighters and river steamers—craft of every description—ply up and down the Mississippi River, which is navigable for most of the way from its rise in northern Minnesota to the Gulf of Mexico. The show boat here shown, French's New Sensation, is a traveling theatre for shore audiences and a home for its actors.





Photograph by Dennett

**THE SHARP BEND KNOWN AS THE DEVIL'S ELBOW, AT THE DELLS, WISCONSIN**

The Dells are a region where tinted limestone cliffs, now clothed with verdure, have been fantastically eroded into cliffs and canyons by the Wisconsin River. Wisconsin, with its many lakes, its rapid streams and woods, is a playground of Mid-Western vacation seekers, who may follow the trout-filled waterways by steamer or canoe.





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ARCH ROCK is an interesting natural phenomenon on Mackinac Island, Michigan, which lies in the Straits of Mackinac, connecting Lakes Huron and Michigan. The island is about two miles by three, and half the area is now included in a state park. There was a French post

on the island very early, which was later overtaken by the British, and a strong fort was established. After the island fell to the United States the fort was maintained until 1895. The island is now a popular summer resort visited every year by thousands of pleasure-seekers.





COPYRIGHT DETROIT PHOTOGRAPHIC CO.

**FORT SNELLING**, a United States Army post, was built at the junction of the Mississippi and Minnesota rivers in 1820 as an outpost in the Indian country. It was named for Colonel Josiah Snelling, its first commander, and is still occupied, though the necessity for

its existence has departed. As a result of the building of the fort the villages of St. Anthony and of Minneapolis were founded and the latter, as it grew, absorbed the former. St. Paul, a little farther down the Mississippi, also owes its founding to the fort.



## STATES OF LAKE AND PLAIN

As for mining, large deposits of pure copper exist along the south shore of Lake Superior and for a time copper-mining was a leading industry; but now mines must be driven very deep, where once the Indians were able to secure it at the surface. The hills around the western end of Lake Superior also contain quantities of

turns out three-fourths of the automobiles of the United States, four-fifths of the farming implements and, indeed, one-third of all manufactured products, and contains two-fifths of the railroad mileage of the country.

Naturally, the population is densest where there is the most manufacturing—



Photograph by Ewing Galloway

### A FIELD OF RUSTLING, HALF-GROWN CORN IN THE MID-WESTERN CORN BELT

Two girls of Wabash Township, Tippecanoe County, Indiana, are shown here giving a corn-field a final ridging up with cultivators. When it is grown, the corn will wave above their heads. Like many other women of the Corn Belt, these girls belong to corn and pig clubs and help cultivate the many acres of corn grown in the North Central states.

iron ore, easily mined. This iron supplies furnaces even in eastern cities. The mines are usually corporation-owned and the iron mills have in their turn created towns. It is safe to say that over five-sixths of the iron ore of the United States comes from the ore lands at the head of Lake Superior. Illinois ranks as the third state in the production of coal, Michigan third in copper production and first in salt. What is more, this section of the country

notably, in the states having the best combined water and rail transportation facilities as Ohio, Illinois, Indiana, Michigan, Missouri and Wisconsin to name them in order of population density. Ohio and Illinois take the lead in the value of their manufactures, with Michigan next, then Indiana, Wisconsin and Missouri. The 100th meridian states, with their lack of sufficient rain at least in their western portions, have fewer people.



## STATES OF LAKE AND PLAIN

The North Central states all have excellent educational facilities. Each has a state university, and some of them are world-famous. Ohio, with a larger urban population than the average, has no less than forty colleges and universities and Ohio State University has over twelve thousand students. The University of

Scientific Crime Detection Laboratory, the first of its kind in the country. Wisconsin, with 17.5 per cent of her population foreign-born, has compulsory part-time education in the day-time for employed children, half-time for those from fourteen to sixteen years and eight hours a week for those from sixteen to eighteen.



Photograph by Ewing Galloway

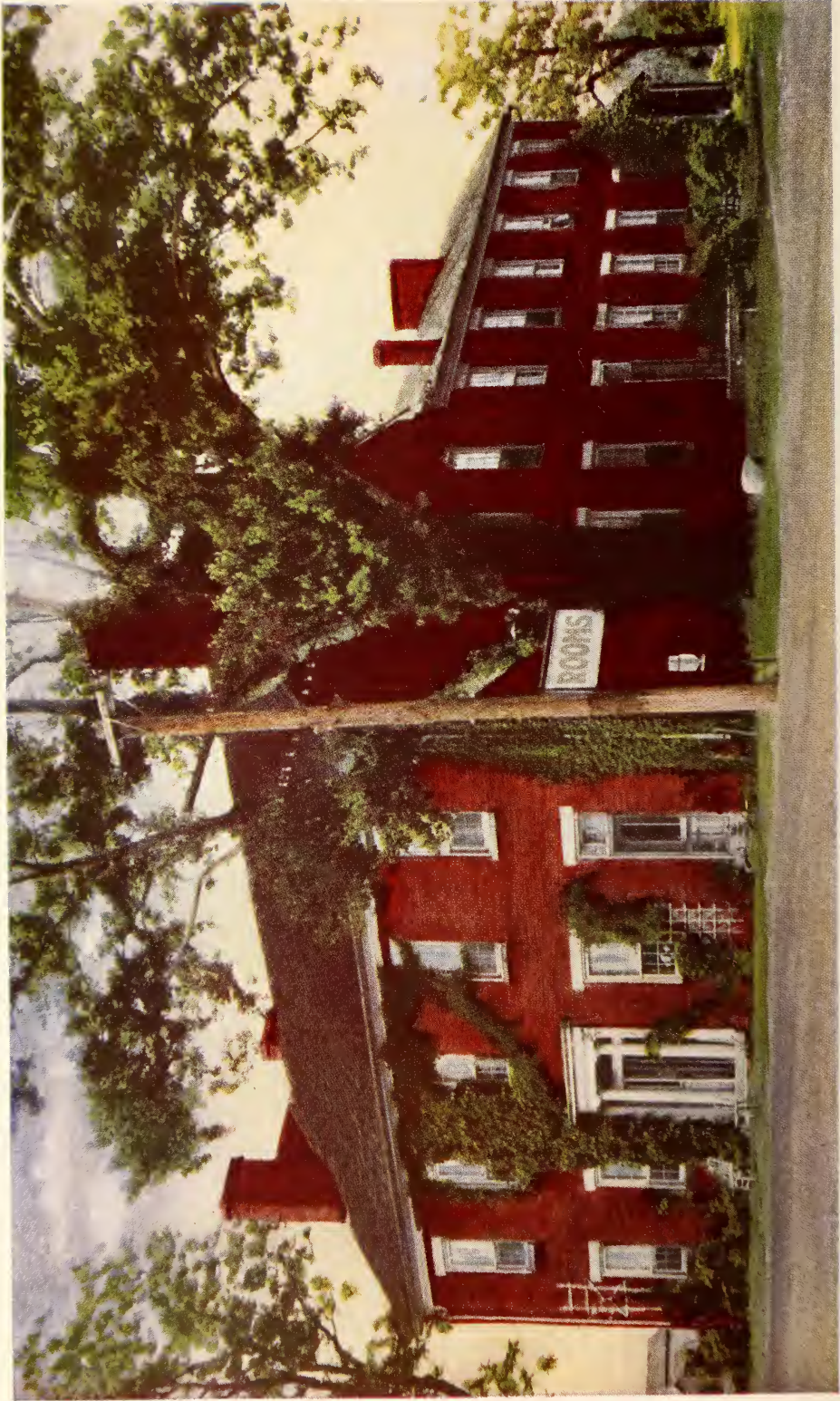
### A FIELD OF BEARDED WINTER WHEAT WAVING OVER LEVEL ACRES

The westernmost of the North Central states contain two wonderful wheat-growing belts, that of spring wheat centering around North Dakota and that of winter wheat (planted in the fall) centering around Kansas. These two states between them grow practically half of the 37,312,000 or more acres of wheat planted in the North Central states.

Illinois has thirteen thousand, Michigan over ten thousand, Nebraska and Wisconsin around nine thousand (Wisconsin with an even larger number in the correspondence school), and Northwestern University nearly five thousand. The University of Chicago, attended by students from many states and foreign countries as well, has not far short of thirteen thousand. Here too is located a Police School, while Northwestern is to have a

There are not far short of 35,000 pupils in her part-time day schools and an even larger number in state-supervised extension schools. Nebraska has been almost unique in one way. The Federal Government granted three million acres of public lands to endow the schools. The state holds over half of this, and there is a permanent endowment of \$21,564,714 for the education of the people. The state has but 1.4 per cent illiteracy. But one





PHOTOGRAPH BY EWING GALLOWAY

**THE CUMBERLAND** or National Road was planned to extend from tidewater over the mountains to the Mississippi River, but was never completed by the national government though several of the states attempted to continue the work. This tavern at Lafayette, Ohio, was

built in 1837 by a man from Connecticut when the road through this part of Ohio was first laid out; and the building is still used as a tavern. The old road through Ohio has recently been much improved and now forms a part of the eastern section of the National Old Trails road.





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**CEDAR RIVER**, or Red Cedar River, rises in Minnesota and flows nearly across eastern Iowa, emptying finally into the Iowa River, about thirty miles before it, in turn, flows into the Mississippi. The fall is considerable, as shown by the names of such towns on its banks

as Cedar Rapids and Cedar Falls. Though not a large stream, the river drains a beautiful and fertile region. These bluffs, or palisades, though not to be compared in height with those of the Hudson, make the scenery along certain parts of its course distinctly attractive.





Courtesy Commissioner of Immigration, Bismarck

### THE MOUSE RIVER FLOWING THROUGH NORTH DAKOTA

The Mouse, or Souris River, rises in Saskatchewan, and makes a great loop into North Dakota, after which it turns back into Manitoba where it flows into the Assiniboine. Here it is seen flowing through a ranch in North Dakota. The luxuriant vegetation on the banks shows the fertility of the soil which needs only water to produce abundantly.

cannot begin to name all of the opportunities for practical education in this part of the country.

Some great scholars are in the universities of the Middle West and some of the most popular poets and novelists were born in one or another of these states. Nor must we fail to mention painters and sculptors.

The people of the region are more interested in politics than some other sections of the country. Deep interest in the nominations is felt and the primaries are largely attended. Oratory has not ceased to thrill and a man who is a good speaker has a decided advantage over an opponent not so gifted. While many always vote the regular ticket, there is also a considerable amount of political independence which often takes the form of insurgency. They do not repudiate the party name, and form a new party, but nevertheless demand the right to take an independent position on any question of interest.

On the other hand, many do forsake the old parties, and strive to establish new organizations. Several of the "third parties" which have appeared in the field since the Civil War had their origin and found their chief strength in these states. Their political weight is recognized. Of the fifteen presidents who have filled the office since 1860, eight come from this region, and another was born in Iowa. Many of the most influential members of both houses of Congress are sent from these states.

The people are fond of calling their region by such names as the "Heart of America" or the "Valley of Democracy." They have some justification for their boasts. They are, on the whole, democratic; the level of intelligence is certainly up to, if not above the average, and the same may be said for the standard of morals. The average of material comfort is rather high, and the prospects for future development are bright.



## STATES OF LAKE AND PLAIN

### THE NORTH CENTRAL STATES: FACTS AND FIGURES

STATE	TOTAL AREA (SQ. MILES)	POPULATION (1920 CENSUS)
Ohio . . . . .	41,040	5,759,394
Indiana . . . . .	36,354	2,930,390
Illinois . . . . .	56,665	6,485,280
Missouri . . . . .	69,420	3,404,055
Michigan . . . . .	57,980	3,668,412
Wisconsin . . . . .	56,066	2,632,067
Minnesota . . . . .	84,682	2,387,125
Iowa . . . . .	56,147	2,404,021
North Dakota . . . . .	70,837	646,872
South Dakota . . . . .	77,615	636,547
Nebraska . . . . .	77,520	1,296,372
Kansas . . . . .	82,158	1,769,257

#### COMMERCE AND INDUSTRIES

The North Central states produce nearly one-half of all the farm crops in the United States, over half of the wheat crop, two-thirds of the corn crop, three-fourths of the oat crop and more than three-fifths of the barley crop. Enormous quantities of hay, potatoes, rye, buckwheat, sugar-beets, tobacco and fruits are grown each year. Throughout these states there are active livestock industries; dairying is highly developed; hogs, cattle and sheep are raised for the market. More than five-sixths of the iron ore of the United States comes from the Lake Superior "ore lands" in Minnesota, Michigan and Wisconsin. Illinois ranks third among the states in the production of coal; it is also mined in Indiana, Iowa, Kansas and Missouri. Michigan leads in the production of salt and is third in copper output. Missouri mines large quantities of lead, and the quarries throughout the North Central states yield sandstone, limestone and gypsum, there is an enormous output of Portland

cement, bricks and tiles and other clay products. Silver and gold are mined in South Dakota. These states produce, by value, one-third of the manufactured products of the United States; four-fifths of the farming implements; nearly two-thirds of the world's output of automobiles are manufactured in Michigan. Furniture and paper products are important in the states around the Great Lakes. The cereal crops and livestock industries have given rise to numerous flour and grist mills, meat-packing plants, and the manufacture on a large scale of butter and cheese.

#### IMPORTANT CITIES

Population of state capitals (1928 estimates): Columbus, Ohio, 299,000; Indianapolis, Indiana, 382,100; Springfield, Illinois, 67,200; Jefferson City, Missouri, 14,490 (1920); Lansing, Michigan, 79,600; Madison, Wisconsin, 50,500; St. Paul, Minnesota, 358,162; Des Moines, Iowa, 151,900; Bismarck, North Dakota, 7,122 (1920); Pierre, South Dakota, 3,209 (1920); Lincoln, Nebraska, 71,100; Topeka, Kansas, 62,800.

Other important cities with their populations (1928 estimates): Chicago, Illinois, 3,157,400; Detroit, Michigan, 1,378,900; Cleveland, Ohio, 1,010,300; St. Louis, Missouri, 848,100; Milwaukee, Wisconsin, 544,200; Minneapolis, Minnesota, 455,900; Cincinnati, Ohio, 413,700; Kansas City, Missouri, 391,000; Toledo, Ohio, 313,200; Akron, Ohio, 240,000; Omaha, Nebraska, 222,800; Dayton, Ohio, 184,500; Youngstown, Ohio, 174,200; Grand Rapids, Michigan, 164,200; Flint, Michigan, 148,800; Kansas City, Kansas, 118,300; Duluth, Minnesota, 116,800; Canton, Ohio, 116,800.

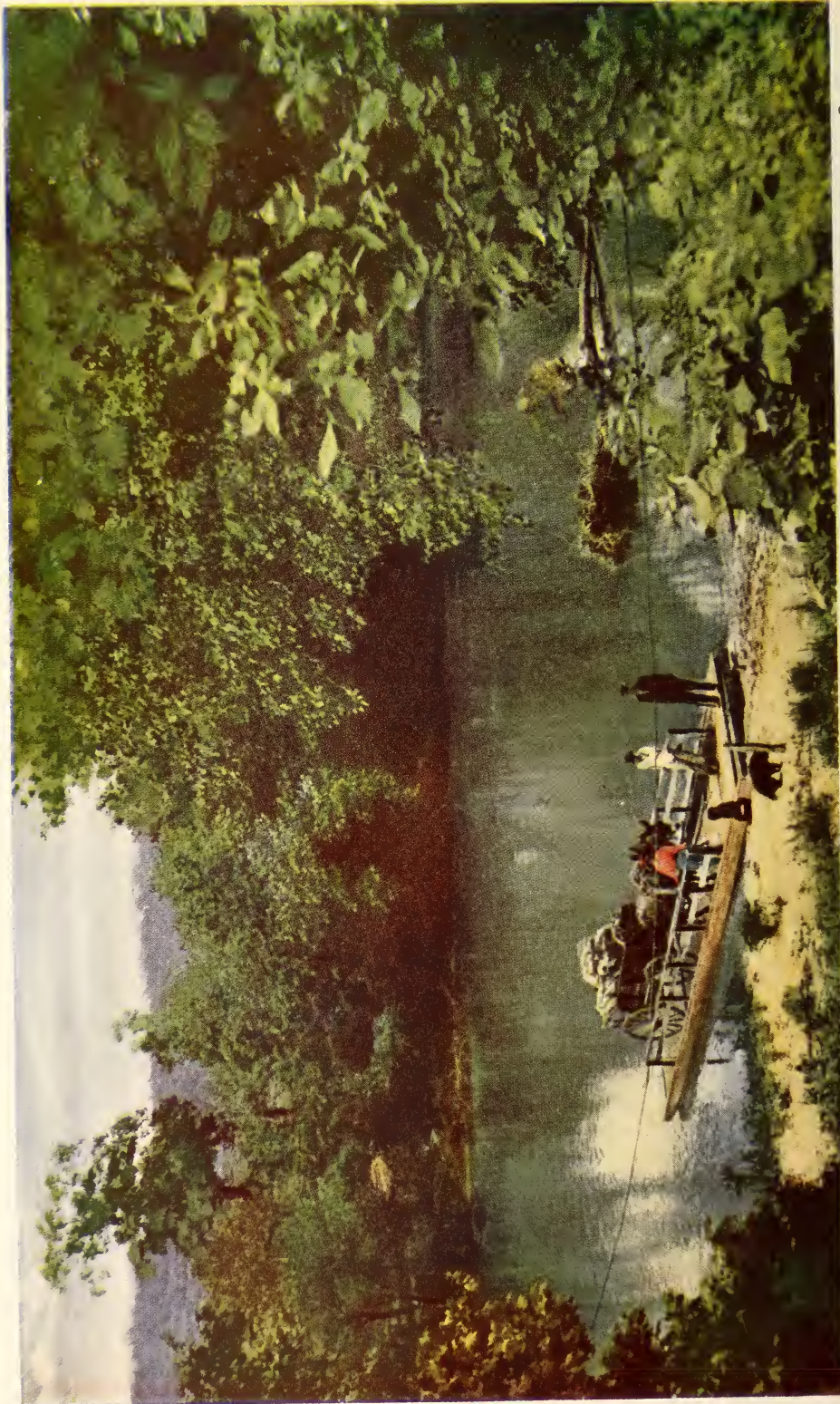


Courtesy Youngstown Chamber of Commerce

#### THE OLD MILL AT LANTERMAN'S FALLS, YOUNGSTOWN, OHIO

Youngstown, Ohio, named for John Young who bought the site in the eighteenth century, is in the heart of a great steel district and the product of its factories and rolling mills is enormous. The first blast-furnace was built on the site of the city in 1826. The United States Steel Corporation has blast-furnaces and iron and steel works here.





© EWING GALLOWAY

**THE OZARK PLATEAU**, which covers a considerable part of Missouri, extending into Arkansas and Oklahoma, is an interesting region from many standpoints. Because it lacks good roads it has been isolated, and even yet some of it is pioneer country far from the railways where

people are simple and independent. Here is shown a primitive ferry across the White River in southern Missouri. The team is driven upon the flatboat, and by pulling upon the rope or wire which has been stretched across the river the boat with its load slowly crosses the stream.



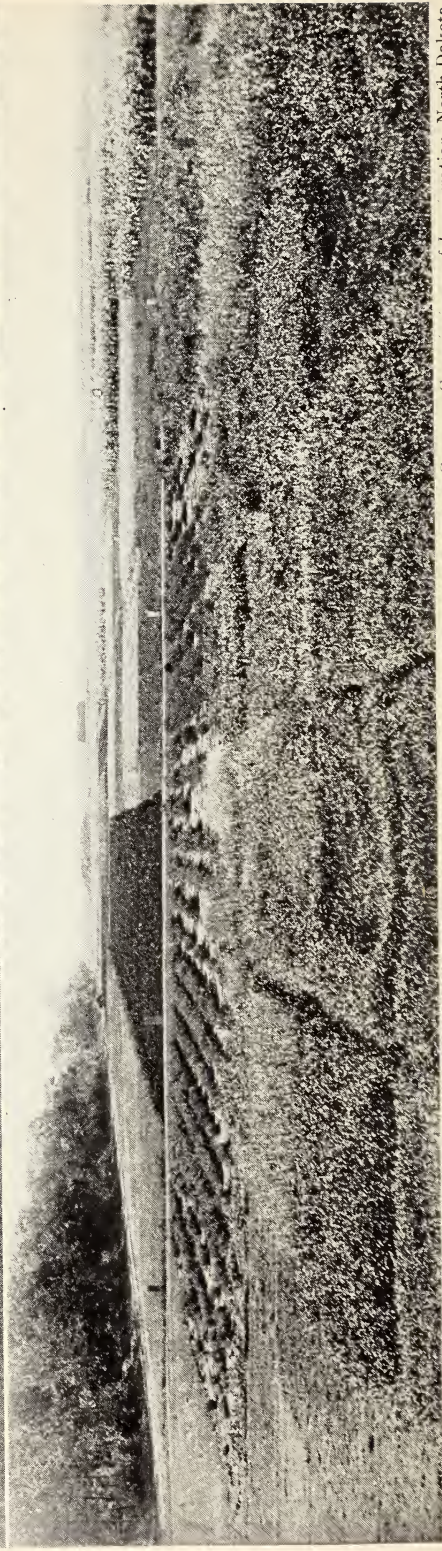
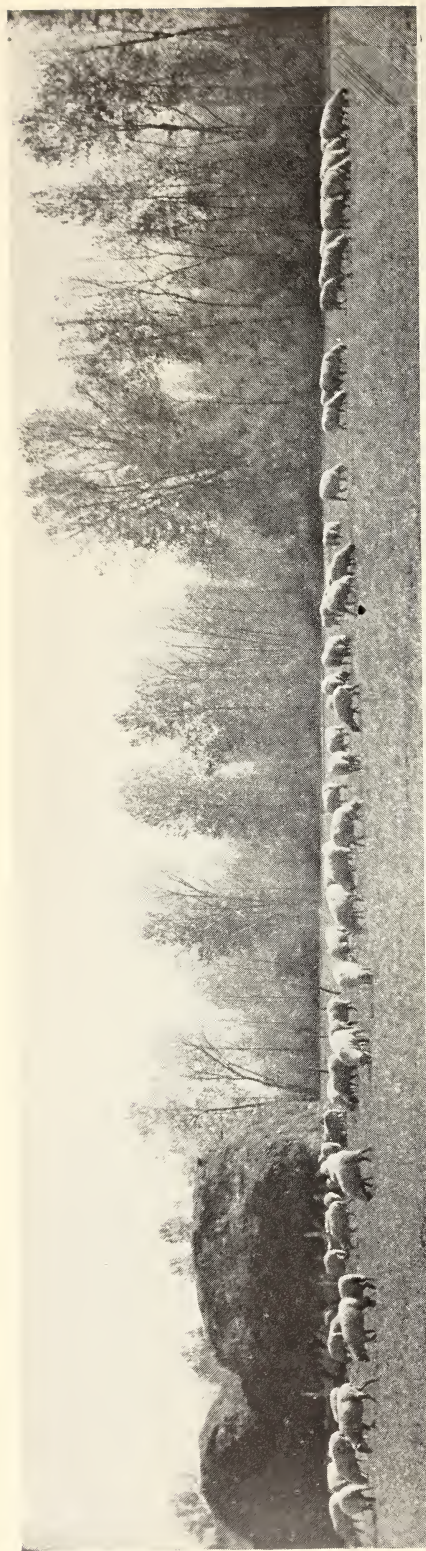


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**THE BLACK HILLS** of South Dakota, extending into Wyoming, are a mountainous region covering about 6,000 square miles. They were named because about one-third of the area was covered with dark pines when first visited by white men. The region is rich in minerals, par-

ticularly gold. The climate is pleasant, rainfall is abundant, and there is considerable fertile land which affords excellent pasture. Much of the area has been set aside for state and national parks and game reserves. Our picture shows a female elk within a reservation.





Courtesy Commissioner of Immigration, North Dakota

#### SHEEP GRAZING ON ALFALFA AND (BELOW) ALFALFA GROWING WITH BROME GRASS

The North Dakota State Agricultural College at Fargo is growing alfalfa experimentally along with brome grass, a hardy forage plant. The upper picture shows a flock of sheep browsing in a field of alfalfa, the first cutting of which is already in the stacks shown on the left of the picture. North Dakota is not only the leading state in the production of spring wheat, but also is becoming an important state in the growing of various forage plants, particularly in the areas irrigated under the projects of the Federal Reclamation Act.





Photograph by Russell Reid

© Publishers Photo Service  
**SPIRIT CITY SHOWING ALSO A SEPARATE FORMATION OF THE DAKOTA "BAD LANDS"**

The "Bad Lands" of the Dakotas, so the geologists tell us, were once level plains but have been intricately eroded and carved into many fantastic formations. Often the clay pillars were topped by a layer of sandstone which has partially protected them. Many fossils of strange beasts which once roamed the earth in past ages have been found all through the region. The inset shows the height of one of the queer formations relative to that of the mounted man at its base. The formations present a bewildering array of colors—buff, pale green, gray and pink.



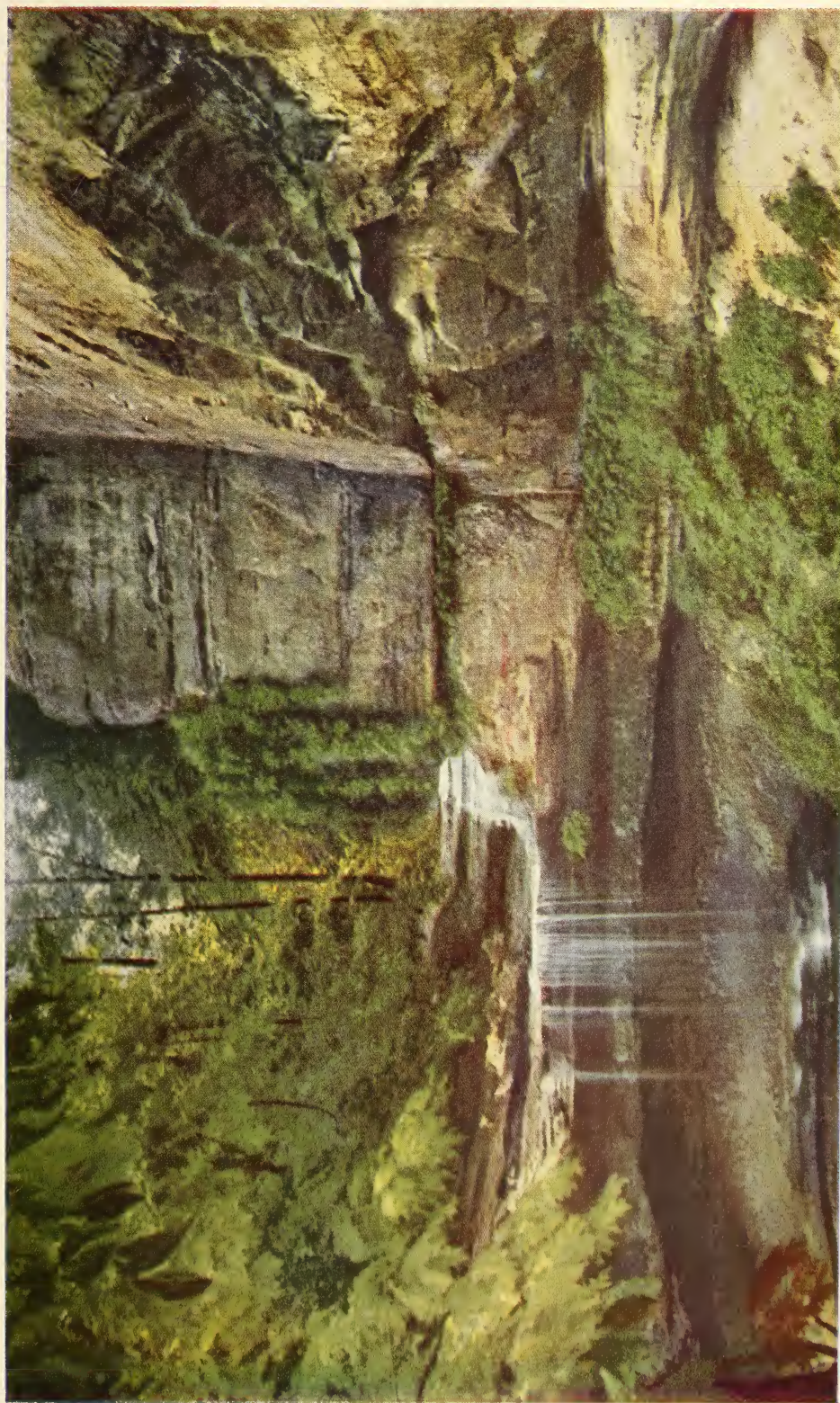


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WISCONSIN, in part, escaped the ice-sheets which long covered so much of the surface of the North Central states. In fact there is a whole section of considerable size known as the "driftless area," over which an ice sheet never passed and which therefore is particularly

interesting from a geological standpoint. It presents numerous out-lying hills which show curious sandstone formations like Castle Rocks near Camp Douglas. Such a formation is the result of erosion, and to-day is more commonly found in the semi-arid regions farther west.





PHOTOGRAPH BY EWING GALLOWAY

**STARVED ROCK** is a steep rocky hillock on the southern bank of the Illinois River almost midway between the cities of Ottawa and LaSalle, Illinois. Here the French explorers LaSalle and Tonty, in 1682, established Fort St. Louis which was occupied until about 1718.

About 1770, some Illinois Indians were closely besieged on the rock by their enemies, the Potawatomi, and were finally starved to death. The area which includes the Rock is now a state park. Our picture shows Horseshoe Fall on what is now only a small stream in the park.





Courtesy The Atchison, Topeka & Santa Fé Railway Co.

### THE ERODED WINDOW ARCH IN CANYON DE CHELLY, ARIZONA

The great Colorado Plateau of Arizona is an arid country gashed by river canyons. The Canyon de Chelly lies in the Navajo Reserve in the extreme northeast corner of the state east of the Chin Lee Valley. Here are cliff-dwellings where once the Indians made their villages in high caves reached perhaps by log ladders or steps carved in the face of the cliff.



# THE STATES TOWARD THE SUNSET

## *The Mountain and Pacific Coast States*

What we call the West includes the 8 Mountain states, in which there is an average of less than 4 persons to the square mile, and the 3 Pacific Coast states, in which the average is 17.5 persons as contrasted with 222.6 for the Middle Atlantic states. This territory, romantic since the days of the covered wagons and the gold rush of Forty-Nine, includes over a million square miles, over two-fifths of the area of the continental United States. It contains the highest mountains, the driest deserts and (around Puget Sound) the wettest mountain slopes of the country, as well as the most national parks and forests. The West was settled by those with the courage to face a remote wilderness, and there has been swift progress—skyscrapers for the larger cities, paved motor highways, airports, machine-logging, irrigating, mining, sheep and cattle-rearing all on a stupendous scale. Nor must the future possibilities of the great seaports be overlooked.

THE area we have classed as the West includes two groups of states as given in the United States Census—the Mountain and the Pacific states. It is the largest of our four divisions, including as it does eleven states with a total area of 1,277,104 square miles. The Mountain states are Montana, Idaho, Wyoming, Colorado, New Mexico, Arizona, Utah and Nevada; the Pacific states are California, Oregon and Washington. Generally they are large compared with the states of the East, and the population of most of them is still sparse, though the Pacific group is becoming somewhat thickly settled.

Most of this region was once beneath a great inland sea. Marine fossils have been found eleven thousand feet high in the various ranges of the Rockies, and California has what are called raised beaches which are as much as fifteen hundred feet above the present sea level. For the most part the mountains have undergone a slow elevation through long ages. In the arid southwest there are vast tracts where the sandstone has been eroded into buttes and canyons. Along the Pacific, a line of volcanoes once flamed red where now rise the mountain ramparts. These too have done their part in upbuilding the region and one, Lassen Peak in California, is still active. The mountains have innumerable small lakes of great scenic beauty, of which Lake Chelan in Washington is one of the largest; but there are no vast lakes save

Great Salt Lake in Utah, a remnant of a Lake Bonneville of glacial times.

Some of the rivers are extremely powerful, especially the Colorado, which rushes, yellow with silt, from the distant mountains through the Grand Canyon it has carved in Arizona and into the Gulf of California. Its waters are made to irrigate desert wastes. The Missouri, originating in southwestern Montana, supplied a mighty highway to the early pathfinders, who made their way from its headwaters into the Columbia. This mighty river, after coming down through central Washington, rushes through a great gorge to the Pacific. Great have been the services of the Columbia, not alone to shipping, for which a channel has been improved all the way to Portland, but to the lumber and salmon-fishing industries. South of Portland a great valley is watered by the Willamette River. The Sacramento and to a less extent the San Joaquin water California's fertile Central Valley, and many lesser streams take their rise in the mountains.

If we look at the altitude map on page 192, we find the Pacific states walled in, on the west by the Coast Ranges of California and Oregon and the Olympic Mountains on a peninsula jutting into Puget Sound in Washington; then, toward the eastern side of California but extending through west-central Washington, a generally north-south ridge of higher mountains composed of the Cascade Range in Washington and Oregon and the





© EWING GALLOWAY

**HOPI INDIANS**, sometimes called Moqui, are among the most conservative of all Indians. They live in pueblos or villages in Arizona, located on the tops of mesas and cultivate farms in the valley washes below. There is little admixture of white blood, and they have preserved many of their tribal customs and some of the old arts as weaving, basketry and pottery. They cling to their old religious beliefs, and the older members vigorously oppose missionary effort. Recently, however, more children than formerly have been attending schools provided for them.





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**WALAPAI WOMEN** wear a blouse and skirt, occasionally concealed by one of these brilliantly colored blankets. Unfortunately these blankets are becoming rarer as the years go by, because it takes a long time to make them on the simple Indian looms, and it is so much easier for the Indians to buy their clothing from the traders. The Walapais live in Arizona, and are included in the Yuman family, which consists of several small tribes now living in the southwestern United States of America and the adjacent portions of Mexico.





© Patterson Pictures.

#### LOOKING ACROSS ROGUE RIVER VALLEY TO MT. McLOUGHLIN (9,750 feet)

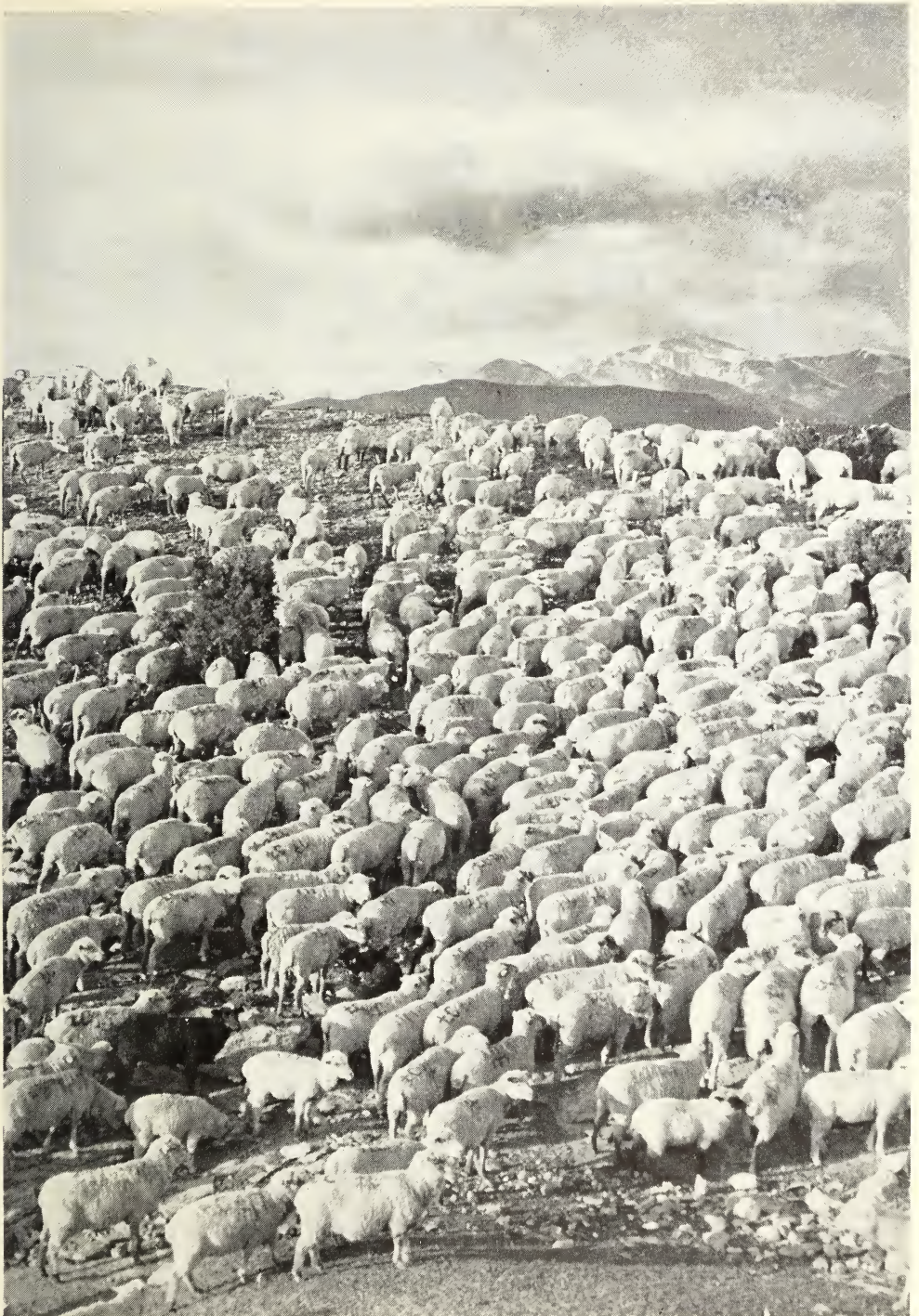
Oregon is divided by the Cascade Range into moist, heavily timbered westward slopes and dry eastern valleys rich in splendid apples, cherries, peaches, pears, loganberries, wheat and other crops. The sparse population has developed few industries other than lumbering and fishing, but the state possesses a tenth of the nation's water power.

Sierra Nevada in California. The latter has been likened by John Muir to a long granite block with spurs running westward like the teeth of a giant comb; there is an abrupt drop on the eastern face. Now come three vast high plateaus; that to the north is called the Columbia Plateau, the next, the Great Basin, and that to the south, the Colorado Plateau. As the Cascades and the Sierras rob the winds from the Pacific of their moisture, these plateaus require irrigation where agriculture is practiced. Now come the scattered ranges of the Rocky Mountain System, rising from the Great Plains and the deserts, a part of the rocky backbone of the continent. In it the Continental Divide separates the rivers which flow westward from those which flow eastward.

The Pacific Coast is uncommonly regular as compared with the Atlantic seaboard, except for the two huge indentations of Puget Sound—a trough once occupied by glaciers—and San Francisco Bay and the smaller one at San Diego. So narrow is the continental land shelf

that there are comparatively few islands save in these bays and sounds, and the United States Coast Guard is obliged to maintain far fewer life-saving stations than on the Atlantic seaboard. A warm ocean current that sweeps northward from Japan, then westward and southward keeps the Pacific Coast winters mild; though a narrow belt of cold near-shore water causes fog on the coast, and west of the Sierra-Cascade mountain wall the rains occur in winter. In the higher altitudes of these mountains, however, almost daily thunder-showers are precipitated. While the seaward slopes of the Cascades receive exceptional rainfall, from 60 to 120 inches a year, much of the West is semi-arid, and in the extreme south, arid. People who live around Puget Sound wear rain-togs all winter as a matter of course, for when it is not pouring, it is likely to be drizzling; but the tourist in southern California is always laughed at for carrying an umbrella on any day that begins merely dull with fog. Parts of Arizona are usually entirely





Photograph by J. E. Stimson, Cheyenne, Chas. Belden, Pitchfork, Courtesy Casper Chamber of Commerce  
**IN WYOMING, WITH SHEEP UPON A THOUSAND HILLS**

Sheep thrive on the high plateaus of Wyoming, Montana and Idaho where cattle would not, and the first named states have over three million sheep apiece. Idaho over two million, while the total wool clip of the three comes to nearly sixty-five million pounds. Wyoming, with its lion's share of Yellowstone National Park, also has the world's largest elk herds.





© GLEASON

**POTTERY-MAKING** is one of the oldest arts among the Pueblo Indians, so called because they live in pueblos, the Spanish word for villages. They make every form of utensil for domestic use, cooking vessels, bowls, platters and candle-sticks. The women are usually the potters, though occasional Hopi men may be found who are also clever craftsmen.





AMERICAN MUSEUM OF NATURAL HISTORY

**THE APACHES** were among the fiercest of all the Indian tribes and were not finally subdued until 1886. This fine specimen has dressed up for the tourist in any finery he could get, no matter how incorrect. The bead ornaments are characteristic of the northern tribes, the headdress is also incorrect, and, of course, no Indian originally had velvet garments.





Courtesy Portland Chamber of Commerce

### LUMBERMAN AND FALLEN GIANT OF THE DOUGLAS FIR REGION

The seaward slopes of Oregon and Washington produce forests of gigantic Douglas firs and other big trees, where lumbering is performed by high-power machinery capable of swinging a two-hundred-foot log across a canyon for rail-shipment to tidewater. Oregon, which contains over a fifth of the standing timber of the United States, usually ranks first in this regard.

rainless. As for temperature, that varies from the Montana blizzard far below zero along the Canadian border and the eternal snows of the high peaks to the 120 degrees above zero in a city of southeastern California where the writer's heels dented the melting asphalt. The vegetation varies likewise, from the gigantic cedars, spruces and Douglas firs of the moist Pacific northwest, the fog-laved coast redwoods of California and the Big Trees of the Sierra to the prickly plants of the desert and their sage-brush and greasewood.

The Southwest has many palms and other sub-tropic plants, while Washington gardens often look not unlike those of Maine. As for wild life, it still abounds in the remoter regions, although the buffalo that once roamed the plains can now be found only within the boundaries of one or two of the National Parks, and wolves are infrequent save for the little yellow coyotes. A few grizzly bears in the Rockies and a few mountain lions (cougars) in various

mountain fastnesses are the only formidable creatures left. There are rattlesnakes in the sunny arid places. Elk and deer are still abundant where there are woods; a few mountain sheep and goats are seen by hunters in the northern Rockies and wildcats, rabbits, chipmunks and other small animals may be found in abundance. Western birds migrate up and down the rim of the Pacific and the inland waters are usually alive with trout, besides which salmon by the millions swim up the Columbia at spawning time, actually leaping the falls.

The Spanish explorers early wandered into the interior; and while they made no settlements, the later Spanish influence survives to-day—in the southern half of the region, at least—in many words common in western vocabularies, in place-names and in the modified Spanish architecture, with its patios and loggias of native adobe or tinted stucco or Portland cement. The Indian aborigines varied



## THE STATES TOWARD THE SUNSET

from the murderous Apaches of desert and plain, now pretty well tamed, to the peace-loving Klatrops at the mouth of the Columbia who even three-quarters of a century ago dwelt in wooden long-houses with totem-poles before their doors and fished in carved high-prowed canoes, and the peace-loving Pueblos of Arizona who for centuries had practiced a crude system of irrigation.

What we know as New Mexico was visited by the Spanish conquistadores over three centuries ago, and the region has had a continuous Spanish civilization, with few changes, since that date; for not until after the war between the United States and Mexico was American influence felt in that region. The Mission Fathers followed in the wake of the adventurers, and old Spanish Missions are still standing here and there throughout the Southwest. At Mission San Carlos

near Monterey lies California's first great missionary, Father Junipero Serra, a Franciscan monk who traveled half the length of the state to bring Christianity to the Indians.

In 1792 Captain Robert Gray, of Boston, sailed in his good ship *Columbia* into a great river which flowed through what was known as the Oregon Country. This region President Jefferson sent Meriwether Lewis and William Clark to explore. Led by traders of the American Fur Company, which had penetrated as far westward as the Rockies, and by Indian guides, they started in 1804, making their way up the Missouri and across the mountains into the Columbia and keeping such a careful record that it served to guide those who came after them. Now the British George Vancouver, who had served under Captain James Cook, commanded an expedition in 1792 which ex-



THE WAY LOGS ARE HAULED IN OREGON AND WASHINGTON

Four-fifths of Oregon's outgoing products are those of the lumber camps and mills, and 65 per cent of her wage-workers are lumbermen. Eastern Washington and northern California are also heavy timber producers. The "Big Trees" (*Sequoia gigantea*) of California are shown in the article on National Parks, Monuments and Forests, though not the "Coast Redwoods."





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**THIS PUEBLO INDIAN** is examining a cane which is said to have been presented to a former chief by President Lincoln. His dress is a strange conglomeration. He is wearing a white man's coat under the blanket which is not one of the tribal designs, nor are the Pueblos supposed to wear such a feather headdress which properly belongs to the tribes of the Plains.





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**THE RAIN DANCE** of the Zuñis in New Mexico is only a part of an elaborate religious ceremonial which takes place at the time of the summer solstice. In this thirsty land the little rain which falls is vitally important. It is not surprising that there are priests whose function it

is to make rain. In recent years some of the pueblo tribes have commercialized their dances by charging admission, and they are sometimes attended by hundreds of whites. The missionaries generally would like to have all of these ceremonial dances forbidden by the government.





Courtesy Long-Bell Lumber Co.

#### SCENE AT LONGVIEW, WASHINGTON

This lumber camp and mill city on the Columbia between Seattle and Portland was wholly planned beforehand and grew within five years to a population of 12,000.



Photograph by Cross & Linnmitt

#### PORTLAND'S STATUE OF SACAJAWEA

This Indian, whose name means "bird woman," led the Lewis and Clark Expedition in its exploration of the Northwest. The lake shown above was named in her honor.

plored Puget Sound on both sides of the island of Vancouver (discovered in 1778 by Cook himself). Both the Northwest Fur Company and the Hudson's Bay Company were active in that region.

Thus the Oregon Country came to be claimed by Great Britain, Spain, Russia and the United States. Spain had laid

claim to territory on the west coast, but finally by her treaty selling Florida to the United States, agreed to relinquish claim to anything north of what has become the northern boundary of California. Russia, then occupying Alaska, agreed to remain north of  $54^{\circ} 40'$ , the present southern boundary of that territory. Great Britain desired the Columbia River as the dividing line, while the United States claimed what has become British Columbia, clear to  $54^{\circ} 40'$ . The two English-speaking nations compromised on the 49th parallel, which gave Washington to the United States. The Oregon Country was gained by right of exploration and settlement, while the Mexican territory was acquired by right of conquest and purchase.

As early as 1842 John C. Fremont and his guides began a series of explorations of the Rockies, discovering South Pass, one of the three points at which the Rockies can best be crossed (the oldest is that of the Santa Fé Trail). In 1843 a party of settlers, banded together for protection against hostile Indians, made





Photograph by Prentiss, Courtesy Portland Chamber of Commerce

#### **SALMON HAUL ON SAND ISLAND IN THE COLUMBIA RIVER NEAR ASTORIA**

The Columbia River is alive with sea salmon at certain times of the year when they leap waterfalls and swim upstream to spawn. The Indians used to trap them. Now so many of the pink and silver fish are taken that in one year recently between 48,000 and 49,000 cases of canned salmon were packed, and two-thirds were canned on the Oregon side.

their way to Oregon in ox-drawn covered wagons, a journey of five months via Fort Laramie and South Pass; and in 1847 the Mormons followed Brigham Young through South Pass to the Great Salt Lake, which had been discovered by Captain Bonneville in 1832. These Latter Day Saints, who even now constitute three-quarters of the church membership of Utah, brought water from the mountains to irrigate their crops and practically made the state. Later those who branched off the Oregon Trail on the way to California left at Fort Hall for what became known as the Salt Lake Trail. To name but one more of the leading steps in the westward course of empire, Captain J. A. Sutter had built a fort in 1839 on a Mexican land grant on the Sacramento River and at his mill, in 1848, gold was discovered in such large nuggets in the gravel of the river bed as led the great migration known as the gold rush of the

Forty-Niners. People in all walks of life in other parts of the United States and elsewhere went to California, whether by ship around the Horn, over the Isthmus of Panama or across the plains. It was a race in which the winners were the hardiest or the most acute.

A Spanish post and mission had been established on a hilly peninsula on a landlocked inlet of the Pacific, and in 1835 a town was laid out named Yerba Buena for a small flower that abounded. In 1846 a U. S. man-of-war took possession, the name was changed to San Francisco, and three years later it was a gateway to the gold-mines which drew nearly one hundred thousand people to the state in one year. (The Mission Dolores still stands.)

The harbor filled with the sails of all nations, canvas hotels sprang up like mushrooms, a path over the tide-flats was hastily laid of bales of surplus tea, sand-





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**SAN LUIS REY** is one of the twenty-one missions established by the Franciscan Fathers, led by Junipero Serra (Miguel Jose Serra) between 1769 and 1823. Under their direction, the Indians they had come to convert to Christianity constructed the mission buildings, made furniture, cultivated crops and tanned the hides of their cattle.





**A GIANT CACTUS**, growing beside the Apache Trail in Arizona, dwarfs the man on horseback. This plant has assumed the form which exposes the least surface to the sun. The pulp is eaten by the Indians, and when squeezed yields a drink, welcome in arid wastes. Desert flowers and blossoming shrubs are also seen along the trail.





Courtesy Reno Chamber of Commerce

### ACROSS LAKE TAHOE ON THE BOUNDARY OF CALIFORNIA AND NEVADA

Lake Tahoe, lying at an altitude of 6,225 feet in the Sierra Nevadas, has at its centre a depth of 1,645 feet, which may account for its never freezing. It gives rise to Nevada's Truckee River. While Tahoe is a place every tourist visits, few have seen Owen's Lake, near California's Mt. Whitney, set in the grandeur of mountain walls that rise from seven to ten thousand feet.

lots were auctioned off, the Spanish dons from the ranches were quickly outnumbered by miners in red flannel shirts and knee boots and all was high enthusiasm.

The Santa Fé Trail, primarily a trade route, led from Independence, Missouri, eventually to Los Angeles, and the ponderous freight-wagons had worn a way both wide and deep in the sun-baked sands. There followed the horse-stages and for two romantic years preceding the first telegraph line, the pony express. In time bands of steel rails were flung across the continent, and while they were ex-

tremely costly, they laid the way to more rapid settlement. Where herds of buffalo had sometimes stopped the trains, the cattle country in time gave way to fields of waving wheat, and later to oil derricks or mine mouths with debris like giant ant-hills; and to-day the luxurious transcontinental trains offer one radio music while the scenery whizzes by. The Moffat Tube under James Peak penetrates the Continental Divide fifty miles west of Denver, rising to an elevation of nine thousand feet; and there is an electrified tunnel through the Cascade Range a hundred



Photograph by Barker Studio

### UP THE BIG SALMON FROM UPPER END OF A BOX CANYON, IDAHO

Idaho, with its irregular northeastern boundary formed by the Bitter Root, Cœur d'Alene and Cabinet ranges of the Rocky Mountain system, is a glaciated Alpine region, the climate of which near the Canadian border ranges from 35 degrees below zero in winter to 101 in summer. The Snake River, to which the Salmon contributes, flows between steep canyon walls.





Courtesy Southern Pacific Company

#### CRESCENT LAKE, ONE OF WASHINGTON'S NUMEROUS LAKES

At the heads of the many westward-flowing streams that rise in the snow-capped Cascade Range, such glacial lakes abound. A larger one is Lake Chelan, which lies along the eastern slope of the mountains for some sixty miles, though its width varies from but one mile to four. The irregular reaches of Puget Sound add to the scenery of the forested state.

miles east of Seattle. Now great national highways parallel the railroads across deserts and mountains and from Vancouver down the coast to San Diego. By 1927 the coast was reached by a trans-continental air service, while by 1928 San Franciscans could fly to Los Angeles in three hours.

And what of the people who make up the West? While the three Pacific states average seventeen and a half persons to a square mile, the eight Mountain states average less than 4 persons (3.9), including Indians; Wyoming has but 2 persons to a mile and Nevada averages .7, as compared with the 222.6 of the Middle Atlantic states and the average of 35.5 for the entire United States. Yet the area of the Mountain states is 865,017 or between a third and a fourth of the continental United States. Including the Pa-

cific states, the West totals 1,277,104 square miles.

Even to-day there are mountain and desert regions where one may ride for days without seeing a human habitation, although in other places one finds thronged motor highways, vertical architecture in the down-town districts and shop windows which display the latest styles from Paris and London.

In every state the "native whites of native parentage" are in the majority. The immigrants are chiefly from North-western Europe, Canada and Italy, and from Mexico, though there are a few Japanese and Chinese. The big lumbering operations of the Northwest attract the Scandinavian, the vineyard slopes of California are beloved of Italians, while Mexican seasonal workers flood across the border, frequently to remain. The



## THE STATES TOWARD THE SUNSET

Japanese found it easy to cross the Pacific, and a number of Chinese are found, though further immigration has been much restricted.

As for the Mexicans, there were 184,115 in the West in 1920. California had 86,610, Arizona ranked next with 60,325 and New Mexico third with 19,906; but these figures do not take in the seasonal workers, and the numbers have tended to increase since that date.

### *Varied Natural Resources*

We can see that in a region of such varied geography, there must be a number of ways for people to earn their livings. Agriculture is possible in certain areas, only by irrigation; but stock-raising may be practiced over large expanses, and where range-cattle cannot find a living, there may be enough forage for sheep, which are able to go for longer periods without water. In the forested regions, lumbering is the leading industry; along the coast and the Columbia, fishing is important, and in the region around Los Angeles, the sinking of oil wells and refining of petroleum take high rank, for California is one of the most important oil states of the Union. The milling of the lumber, the canning of salmon, fruit and vegetables and the milling of wheat flour are to be expected, and California refines Hawaiian sugar. The sunshine of southern California also makes possible a gigantic moving picture industry and aeroplane factories cluster around Los Angeles. In the slopes of the Rockies, mining for copper, silver and lead is of tremendous importance.

### *Where People Own Their Farms*

Most far western farms are operated by their owners; this tendency is stronger in the Mountain than in the Pacific states. For instance, by the latest census, 23,593,000 acres of farmland in the Mountain states were worked by their owners and only 4,977,000 acres by tenants, together with 1,536,000 acres by managers. Montana had over nine million acres worked by farm owners and less than a million and a half by tenants, while Colo-

rado had five and a half million acres worked by owners and a good deal less than two million by tenants. In the Pacific states, however, 14,680,000 acres were worked by owners and fully 7,097,000 by tenants, and these proportions hold in a general way for each of the three Coast states.

On these farms of the Western states wheat is the most important crop, other than the fruit and vegetables of certain limited regions. On the Great Plains that slope upward to meet the Rockies this grain thrives wonderfully, as it does in eastern Washington. Nearly \$200,000,000 (\$199,292,000) worth of wheat was raised in the West in 1926, a fairly typical year, Montana leading with \$50,000,000 worth and Washington ranking next, with \$47,500,000. Idaho, Oregon and Colorado produced the next largest yields.

### *A Famous Fruit Region*

One is likely to think first of California fruit, but actually California's leading single crop is hay. In that mild, dry climate successive crops of alfalfa may be raised and the hay of the state all put together amounts to between five and six million tons a year. But California produces millions of boxes of oranges, to say nothing of apples, peaches, pears, lemons, prunes, apricots, figs and grapes—wine, table and raisin. California truck-farms produced \$15,381,000 worth of lettuce alone in 1927. The Inland Empire east of the high ranges in Washington and the Hood River Valley of Oregon are two regions which raise quantities of fine apples. Oregon is also famous for its berries, especially loganberries, which spring up quickly when planted on cut-over or burned lands and have been known to send out runners fifty feet in length the first season. California's long interior valley between the Sierras and the Coast Range is one of the richest in the world and the Imperial Valley in the extreme south is fertile. But in much of the West irrigation is necessary and Colorado, for one, has an extensive system of canals which have long been the property of the





#### UPPER SECTION OF AUTO HIGHWAY

The above is an aeroplane view of one approach to the summit of Pike's Peak, Colorado's most famous mountain. It can also be climbed afoot or on horse-back, and can also be reached by railway.



Photographs by H. L. Standley

#### COG-RAILWAY TO THE SUMMIT OF PIKE'S PEAK, SUMMER AND (INSET) WINTER

About a year after the rush of the Forty-Niners, a little gold was discovered near Pike's Peak and gold-seekers set out with wagons labeled "Pike's Peak or Bust" to return "Busted, by Gosh." The peak was discovered in 1806 by Lieut. Zebulon M. Pike. Six miles west of Colorado Springs, it can be ascended by an 8,000-foot cog-railway opened in 1891.



state. Since 1902 a Federal Reclamation Service has established irrigation projects where, by intensive cultivation, even deserts have been made to yield food for men or cattle, although sometimes the costs exceed the productive capacity of the land.

### *Cattle-ranching Important*

On the vast ranges of the West there are between nine and ten million cattle, including beef and dairy animals. The Mountain states contribute 6,217,000 of this number, with Colorado in the lead, and Montana second; while the Pacific states claim 3,194,000, of which California alone has 1,995,000. Where the forage is too poor for cattle, sheep can often find a living; and the Mountain states possess 18,749,000 of the woolly fellows, the Pacific states 6,317,000. While, as with cattle, every state has at least a few, Montana stands out here with over three million, while Wyoming makes a close second. Surprisingly, California beats them both, with three million and a half. Yet for some reason Montana produces a little more wool than California, as does Wyoming. Utah, Oregon, Idaho and New Mexico come next in wool production, and the Western states together produced, in 1926, a total of 157,674,000 pounds of wool. Wild horses once ranged the plains in such numbers that all a man needed to do was to catch one and break it; and even to-day the horses brought in wild from the ranches do considerable bucking and rearing before they will tolerate a saddle. This was the real origin of the rodeos which now often are held merely as a spectacle to which tourists may pay admission, with horses trained to do the "Will James stuff." Montana is now about the only place where wild horses are still found and they are being killed off because they eat the range grass needed by the cattle. Besides, Montana has 536,000 ranch horses, Colorado, 324,000, and other Mountain states sufficient numbers to make a total of 1,678,000, to which the Pacific states add 690,000. In addition, there are varying numbers of swine, mules and hens. California pro-

duced over a billion eggs in 1924, other coast states lesser numbers.

### *Wealth of Mines and Timber*

There is more lumber produced in the Pacific states than anywhere else in the continental United States, in fact, 38.4 per cent of the whole amount (besides wood pulp, shingles, turpentine and rosin). The Pacific states are producing over fourteen billion board feet per year. Unfortunately, the dry summers see many destructive forest fires. The value of the fisheries of the Pacific states totals between eighteen and nineteen million dollars (\$18,915,000). But it is when we come to the mines that we are overwhelmed at the stupendous figures. The value of the production of the Western mines was, according to the latest report, five hundred million dollars and more (\$500,760,000). Of this, the Mountain states produced \$321,826,000 worth, with Arizona in the lead with \$88,000,000. Thus we see that the desert state, which raises little food, has its very considerable value. Yet of individual states, California—the two-in-one state with its great length and varied geography—produced \$163,770,000. Arizona is the great copper state. It smelted 681,168,000 pounds in 1927. Utah, Montana and Nevada come next in this category, although Arizona far out-distances them. Utah, for instance, produced \$267,706,000. Arizona also leads in lead production. It produced 684,165 short tons in 1927, while the next state, Idaho, produced but 150,618.

### *Mineral Production in the West*

California, though it no longer produces the gold it did in the early days, at least yielded 565,000 fine ounces in 1927, as compared with 259,000 for the next state, Colorado, 203,000 for Arizona, 200,000 for Utah, 149,000 for Nevada and smaller amounts for other western states. As for silver, Utah is the greatest silver state, and its 1927 production was worth \$10,974,000, that of Montana \$6,696,000, Idaho \$5,063,000, Arizona \$3,743,000, Nevada \$3,046,000, and Colo-



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rado \$2,235,000. But Idaho has what is probably the largest lead-silver mine in the world.

Western educational facilities are good, as may be seen from the summary of states. Every state has a state university. Men from all of the Mountain states attend the University of California, with its main headquarters at Berkeley and a branch at Los Angeles. The University is by far the largest in the West and in point of numbers ranks as one of the three largest in the United States. Its southern branch includes Scripps Institution of Oceanography at La Jolla, and Lick Astronomical Department at Mount Hamilton where the dry, clear air is wonderful for seeing stars. Leland Stanford University near Palo Alto has been provided with a remarkably large endowment, over \$40,000,000, of which \$22,000,000 was given in memory of the boy whose name it bears. The University of Southern California has over twelve thousand students. There are many denominational and independent colleges. The Mormon Church in Utah maintains the Brigham

Young University and the Latter Day Saints University, which has a business college and night school. But there is not space for mention of all the educational facilities of the West. There is a general desire for education, and every state has compulsory education. There is a good showing of every kind of school from primary to normal, state university and private institution, especially in proportion to the population.

Hardy, self-reliant, brave to the point of daring were those first pioneers into the unknown West. The virtues of the times—which the survivors handed in large degree to their progeny—were courage and enterprise, generosity to those in need and summary justice for the fugitives from eastern justice and other "bad men" who showed no respect for life and the means to life, notably, horses. Toward the few women of the early days there was a gallantry which made them safe to a degree seldom met in the world's history. Initiative and creative energy still stamp the western mind, as does an intellectual independence and readiness to



Courtesy Reno Chamber of Commerce

### PYRAMID LAKE SPIRES, SET IN THE RUGGED TABLELAND OF NEVADA

Most of Nevada, a huge state of but seventy to eighty thousand population (including Indians), lies in the Great Basin from four to five thousand feet above the level of the sea. Broken by buttes and high ranges, its valleys contain a few lakes like those above, and more mud lakes up to fifty miles in length but only a few inches deep, which evaporate in summer.



## THE STATES TOWARD THE SUNSET

experiment on a large scale. As one outcome, certain of the western states were the first to grant equal suffrage. A fondness for exploration and a readiness to rough it has led to an unusual degree of camping and mountaineering. Local patriotism runs high. There are historical pageants like that at Eugene, Oregon, a few years ago, which displayed covered wagons and the Indian "dug-out" canoes. There are flower festivals—tulips in Washington, roses in Oregon, and on every New Year's Day in Pasadena a so-called Rose Tournament in which thousands of flowers of every kind are wound about floats from nearly every town in southern California, before something very like a Spanish fiesta. California celebrates not only Admission Day, the anniversary of the date when the state was admitted to the Union, but every New Year's Eve holds a Mardi Gras. There is cheerful rivalry among the

smaller cities, and the standard joke of cosmopolitan San Francisco is to ask anyone from Los Angeles, "What part of Iowa did *you* come from?"

Parts of the West still contain isolated communities reached only by horse-drawn mountain stages, which up to the turn of the century were common almost everywhere in the country districts. Travelers wore linen "dusters"—for good reason—and so few were the places on the winding mountain roads where two vehicles might pass that the driver watched for the approaching spiral of dust which betokened an oncoming team. In remote valleys people exchanged their surplus produce and lent mutual aid at house-raising, and entire families drove long distances to parties, where the grandmothers put the babies all to bed in some one room. It was a friendly West—and still is, outside the larger cities. Even the cities are not quite like those of the East.

### THE WEST: FACTS AND FIGURES

STATE	TOTAL AREA (SQ. MILES)	POPULATION (1920 CENSUS)
Montana . . .	146,997	548,889
Wyoming . . .	97,914	194,402
Colorado . . .	103,948	939,629
New Mexico . . .	122,634	360,350
Arizona . . .	113,956	334,162
Utah . . .	84,090	449,396
Idaho . . .	83,888	431,866
Nevada . . .	110,690	77,407
California . . .	158,297	3,426,861
Oregon . . .	96,699	783,389
Washington . . .	69,127	1,356,621

#### COMMERCE AND INDUSTRIES

Agriculture and mining are the more important occupations throughout the western states. With the development of irrigation, the Pacific coast states have become the leading source of supply of the nation's fruits and vegetables. California, Oregon and Washington produce enormous quantities of apples, peaches, prunes, pears, citrus fruits, apricots, cherries, berries of all kinds, nuts and vegetables which are either dried, preserved or shipped fresh. Other important crops are wheat (Montana and Washington); hay (California, Montana and Oregon); sugar-beets (Colorado and Utah); cotton (California and Arizona). Cattle and sheep-ranching important in all of the western states; most of the country's wool supply comes from this region. Over three-fourths of the national forests are located in these states; Washington and Oregon lead in the amount of timber cut each year. Ex-

tensive fisheries occur along the Pacific coast. Mineral products are rich and varied; over 98 per cent of the silver produced in the United States comes from the western states (Utah, Montana, Idaho, Arizona and Nevada lead); over 85 per cent of the gold (chiefly in California, Colorado and Arizona); and over 85 per cent of the copper (Arizona, Utah, Montana and Nevada lead). California is a leading source of petroleum; asbestos, lead, zinc and tungsten are mined in several of the states. The West is not highly industrialized; the leading industries are smelting and refining ores, petroleum-refining, moving picture production, meat-packing, saw-milling and flour-milling.

#### IMPORTANT CITIES

Population of state capitals (1920 Census): Phoenix, Arizona, 29,053; Sacramento, California, 65,908; Denver, Colorado, 294,200 (1928); Boise, Idaho, 21,393; Helena, Montana, 12,037; Carson City, Nevada, 1,685; Santa Fé, New Mexico, 7,236; Salem, Oregon, 17,679; Salt Lake City, Utah, 138,000 (1928); Olympia, Washington, 7,795; Cheyenne, Wyoming, 13,829.

Other important cities with their populations (1928 estimates): Los Angeles, California, 1,500,000; San Francisco, California, 585,300; Seattle, Washington, 383,200; Portland, Oregon, 354,600; Oakland, California, 274,100; Long Beach, California, 156,000; San Diego, California, 119,700; Tacoma, Washington, 110,500.





Courtesy Denver & Rio Grande Western R. R.

# SANGRE DE CRISTO RANGE FROM DEWEESE LAKE IN COLORADO



Courtesy The Colorado Association

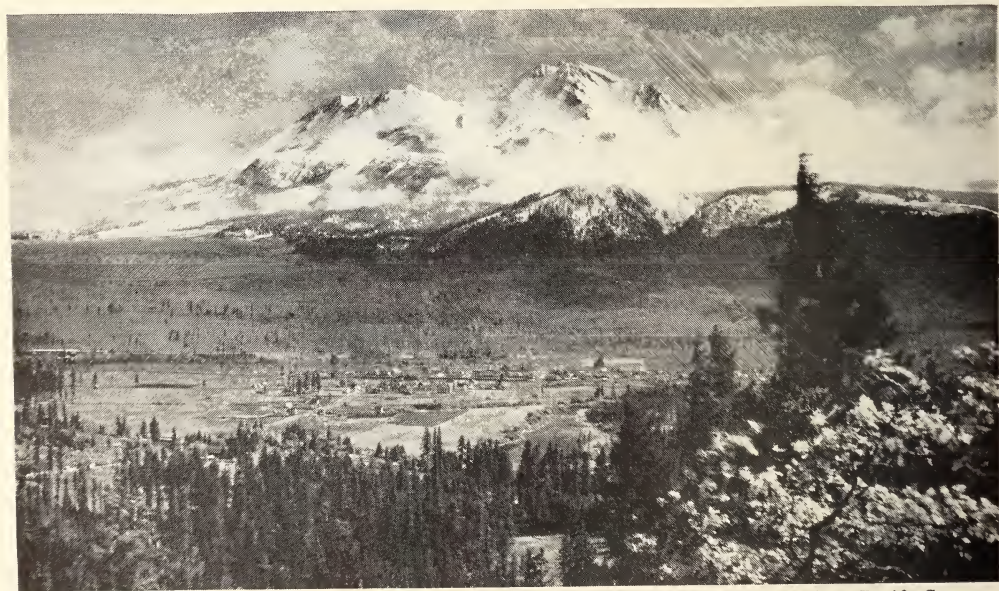
# FAMOUS TROUT FISHING IN THE PLATTE RIVER, NEAR DENVER

It is hard to realize that Colorado, which has natural parks stocked with big game and rivers teeming with trout, also possesses vast tracts so in need of irrigation that since 1872 it has had an extensive system of canals, and so precious are its waters that they are the property of the state. One trouble is that the floods come too early.





MOUNT WHITNEY'S BARREN GRANITE DOME VIEWED FROM BULLFROG LAKE



Courtesy Southern Pacific Company

# VOLCANIC CONE OF MOUNT SHASTA, TEN THOUSAND FEET ABOVE THE PLAIN

Mount Whitney, in the Sierras, rises to 14,502 feet. From its top, reached after a pack-horse trip up the Kern or Kings River canyons, one views a sea of peaks, save on the east, where an almost sheer 10,000-foot drop looks into the desert. Mount Shasta is eroded by glacial actions and bears into alpine lakes and meadows, polished rock and gleaming waterfalls.





© Asahel Curtis

WASHINGTON'S BEAUTIFUL MOUNT ST. HELEN SEEN FROM SPIRIT LAKE



© Asahel Curtis

"THE MOUNTAIN THAT WAS GOD"—MOUNT RAINIER FROM MIRROR LAKE

Mount Rainier (Tacoma), revered of nature-worshipping aborigines, is not part of the Cascades which bisect Washington, but rears its massive crown in western Washington twelve miles from the summit line of the range. The state has a rampart of snow peaks, beginning with Mount Baker behind Puget Sound and reaching to Mount Adams not far from the Columbia River.





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**MOUNT OF THE HOLY CROSS**, in Eagle County, Colorado, was named from the cruciform lines of snow in the ravines near its peak. The mountain is 14,170 feet high, the upright shaft of the cross measuring two thousand feet and the transverse ridge forming the arms, eight

hundred feet. The State of Colorado, lying at the junction of the Great Plains and the Rockies, has many mountains over 12,000 feet high, while about forty peaks reach to a height of over 14,000 feet. There are lofty plateaus between the ranges, as elsewhere in the Rockies.





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ECHO CLIFFS in Grand River Canyon are shown here. The Grand, one of the principal affluents of the Colorado River, has its sources in Middle Park, a great mountain plateau in northern Colorado which is traversed by low ranges like those of the Alleghanies. The Grand

River falls 3,600 feet between the point where a tributary, the Gunnison, joins it and its own junction with the Green River to form the Colorado. In no other state are there the headwaters of so many rivers as in Colorado. Most of its streams, however, are not navigable.





Courtesy Chamber of Commerce, Salt Lake City

### THE GREAT UTAH COPPER MINE AT BINGHAM, TWENTY-EIGHT MILES SOUTHWEST OF SALT LAKE CITY

This is one of the world's marvels. Here more tonnage is moved every day than was removed from the bed of the Panama Canal even during the most intensive operations. As much as 65,000 tons of copper ore and an equal amount of waste or "capping" passes daily through the giant electric shovels. Note the diminutive appearance of the freight trains at the various levels. Utah produced 267,795,397 pounds of copper in one year recently, and the annual value of her mineral products is not far short of one hundred million dollars.





Photograph by Asahel Curtis, Courtesy Chicago, Milwaukee, St. Paul & Pacific R. R.

### THREE FORKS IN SOUTHWESTERN MONTANA, THE SOURCE OF THE MISSOURI RIVER

Montana's rolling benchlands, from which peak after cloud-piercing peak of the Rockies may be seen, rise until, just west of Glacier Park, the rails of the Great Northern cross the Continental Divide at 5,123 feet, before looping in and out of the wooded canyons of the seaward slope.

These vast expanses had, by the last census report, a population of less than 550,000, two-thirds of it rural. The great crop is wheat, on which the state can count annually for about \$50,000,000, though its hay is worth at least half as much.





© GIFFORD, COURTESY UNION PACIFIC SYSTEM

**MULTNOMAH FALLS**, dropping over the edge of a cliff 605 feet high, form part of the beauty of the scenery along the Columbia River Highway, which skirts the southern shore of the river, following the course of the old Oregon trail through the forested Cascade Mountains. It also passes Latourelle, Horsetail, Mist and Bridal Veil falls.





COURTESY UNION PACIFIC SYSTEM

CALIFORNIA GARDENS count among their treasures shrubs, foliage plants and blossoms that represent the flora of many climes; and here nature intensifies their growth until rose-bushes become rose-trees and bloom lavishly up to Christmas, lemon-verbena aspires to tree propor-

tions, heliotrope develops into hedges breast-high, and colorful nasturtiums sometimes cover an embankment in the place of grass. Cannas unfold great leaves and flowers, water-lilies grace the pools, and peppertree branches droop with clusters of decorative crimson berries.





Courtesy The Atchison, Topeka & Santa Fé Railway Co.

**RAINBOW BRIDGE, UTAH, A NATURAL ARCH ERODED FROM PINK SANDSTONE**

This symmetrical example of stream erosion in the elevated region of the Piute Indian Reservation is the largest known natural bridge in the world. From Grand Canyon National Park, Arizona, one approaches it by motor car or pack-train via the Painted Desert and such relics of the past as petrified trees. Utah Valley was once occupied by a great inland sea.



# LANDS OF TREASURE AND ROMANCE

## *United States Territories of Hawaii and Alaska*

The United States has two important territories which present a sharp contrast—the Hawaiian Islands and Alaska. The Hawaiian Archipelago, of eight inhabited and many uninhabited islands, lies over two thousand miles from San Francisco in the North Pacific, and is peopled by an easy-going brown-skinned people and an even larger number of other races. Alaska is a region so vast that were its map superimposed on that of the United States proper, it would cover practically eight states of the Midlands, while its Aleutian Islands would extend like a slender feeler to the shores of southern California and its southern coast—the Panhandle—to the coast of Georgia. This far northern land is peopled by Eskimos and Indians and as many white people. Its mines, seal and salmon fisheries are valuable and great herds of reindeer are raised.

THE United States has two territories to mark her farthest west—Hawaii, in the North Pacific, and Alaska, reaching toward Siberia in the Arctic. Hawaii grows sugar and tropic fruits and serves as a crossroads of the Pacific; Alaska has valuable mines and fisheries, and each has a national park of considerable interest to tourists.

The aboriginal Hawaiians probably came from Samoa about the tenth century. The islands were visited by Captain James Cook in 1778 and to his undoing at a later date, and by George Vancouver in 1792. At this time there was a highly developed feudal system, and several kings. Finally Kamehameha brought the whole group under his control. American whalers came in the nineteenth century, and in 1820, during the reign of King Kamehameha II, missionaries arrived. The islanders were rapidly converted to Christianity and by 1845 nearly every native could read and write. Other white men went for business reasons, and with the passing years came in large measure to control trade and commerce.

Early in 1893 Queen Liliuokalani was deposed and annexation to the United States was asked. This was refused, and in 1894 a republic was proclaimed. In 1898, however, the Hawaiian Islands were annexed and Hawaii is now organized as a territory of the United States.

The Hawaiian Archipelago, called by Cook the Sandwich Islands, consists of eight inhabited islands that lie in a chain

over four hundred miles in length. Counting from the east Hawaii, the largest, comes first, then Maui, Kahoolawe, Lanai, Molokai, Oahu (with its port of Honolulu), Kauai and little Niihau. A dozen more of the islands are uninhabited but valuable as shark-fishing grounds. The eight inhabited islands are of volcanic origin and some of their peaks are capped with snow. Their lower slopes are covered by dense tropical forests with a thick undergrowth of ferns and climbing vines. While there are no snakes, these forests are the home of day-flying bats and of birds of the gayest plumage. In a steamer trip along the rugged coastline one may also see orange groves and coffee plantations, flocks and herds, sugar-mills and pineapple canneries, fishing villages and, in the shallow waters, tropical fish of brilliant hue. One may get a breath of sandalwood, or see flowering ohia trees and the scarlet hibiscus with which the native girls are fond of adorning their hair, as well as the koa or Hawaiian mahogany.

On the island of Hawaii there rises the largest active volcano in the world today, Mauna Loa, which erupts every few years. Near by is a second active volcano, Kilauea, with a pit known as Halemaumau, the "House of Everlasting Fire." Over on neighboring Maui stands the world's largest extinct volcano with a crater covering an area of nineteen square miles and, in places, several thousand feet deep. This region, 245 acres of the two islands, has become Hawaii



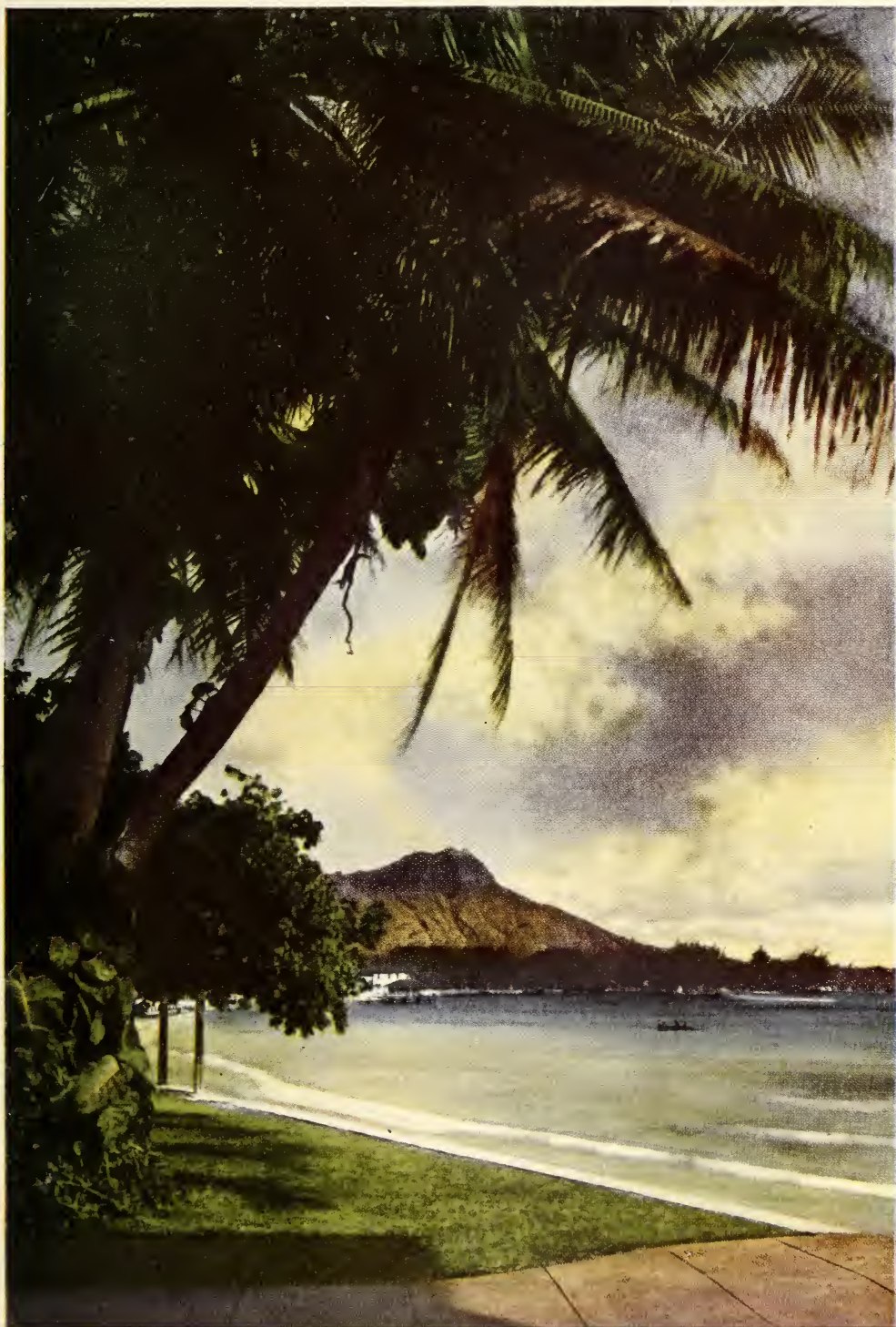


COURTESY MATSON NAVIGATION COMPANY

**A NATURAL BRIDGE** adds interest to this inlet on the shore of the island of Hawaii, a part of the coast that has abrupt cliffs of volcanic formation, instead of gently sloping coral beaches. On the same island, which has given its name to the whole group, a driveway between ferns

of tree height leads to the part of Hawaii National Park where the periodically active volcano Kilauea is set "on the hip," of the older volcano Mauna Loa. From the brink of the crater one can look into the pit of fire where, legend says, dwells Pele, goddess of the volcanoes.





COURTESY MATSON NAVIGATION COMPANY

**WAIKIKI BEACH**, on the island of Oahu, with its bordering coral reefs, is an ideal spot for water sports. The temperature of the water makes swimming and surf-board riding delightful. At night, when the ripples and the palm trees are silvered with moonlight, a tropic enchantment holds sway. Beyond the curve in the shore we can see the crater Diamond Head.





Photo Williams Studio, Courtesy Matson Navigation Co.

#### **RIDING IN FROM SEA ON SURF-BOARDS AT WAIKIKI BEACH**

The natives of Hawaii are as much at home on the water as on land. Superb swimmers, they ride the rolling surf in out-rigger canoes or on surf-boards from far out. Their boards, made of koa wood, the native mahogany, each seven or eight feet long, weigh forty to fifty pounds apiece. Many visitors to the islands have become expert in these sports.



Photo Bernice Pauahi, Courtesy Bishop Museum, Honolulu

#### **NATIVE FISHERMEN SKILLED IN THE USE OF NET AND SPEAR**

Few fishermen of to-day are so expert in the old methods of spearing and netting as were the Hawaiians shown in this scene caught by the camera about a quarter of a century ago. The picture was taken near the Captain Cook monument on Hawaii Island, the last stronghold of native life on these islands of the sea.





Photo 11th Photo Section, Air Service, U. S. A.  
**THE CROSSROADS OF THE PACIFIC**

**THE MALOLO ENTERING HONOLULU HARBOR.** AT "THE CROSSROADS OF THE PACIFIC" Honolulu Harbor, on the south coast of Oahu, is one of the two safe ports in the Hawaiian archipelago. It is equipped with electrical freight-handling apparatus, floating dry-docks and oil-storage tanks connected with the wharves by pipe-lines. The islands export and import heavily,

and the harbor is visited by steamers plying between San Francisco and the Orient, Canada and the Antipodes, the Orient and South America as well as between Hawaii and Pacific ports. There is also a fleet of steamers handling the inter-island trade.





COURTESY MATSON NAVIGATION COMPANY

**FROM NUUANU PALI**, place of vision, stretches out a stupendous panorama of sea and shore and volcanic headlands. It is part of an old crater and is reached by a drive extending from Honolulu along the north shore of the island of Oahu. A motor ride all the way round the

island on the excellent roadways affords a great variety of scenery not only of mountains and beaches but of cultivated landscape as well, in the sugar and rice and pineapple-growing districts, where the soil has by scientific methods been brought to a very high state of fertility.





COURTESY PACIFIC STEAMSHIP COMPANY

**SITKA, ALASKA**, here seen from Sitka Sound, has a safe and spacious harbor, which provides a naval coaling station for the United States. The port is a centre for salmon fisheries and mining and lumbering interests, and an agricultural experiment station is located there. Up

to 1867 Russian territorial headquarters in America, the city continued to be the seat of government for Alaska until Juneau was made the capital in 1906. In the Russian Cathedral there is a valuable collection of art treasures and objects of historic interest well worth visiting.





© E. Andrews, Courtesy Alaska Steamship Co.

# **TAKU GLACIER, A MILE WIDE WHERE IT ENTERS THE SEA, NEAR JUNEAU**

At the end of Taku Inlet, a deep fjord, lies Taku Glacier which enters the sea after having traveled at the rate of perhaps eight feet a day from a great ice field miles inland.

National Park. A motor road leads from Hilo past sugar and pineapple plantations and beneath canopies of giant tree-ferns to the very rim of Kilauea's crater. This vast pit often contains a bubbling mass of lava, sometimes rising in glowing fountains. During the autumn of 1923 tourists could see incandescent geysers of molten lava, while the throat of the volcano rumbled with subterranean pressure and gave forth sulphurous gases. Then masses of rock fell into the pit, until in

1924 tremendous explosions began which continued for three weeks. There is a volcanic observatory at Kilauea and a hotel offering steam baths heated by the volcano itself.

Mauna Loa, rising to 13,675 feet, has a summit crater known as Mokuaweweoe, to which one may ride or hike from Kilauea, a round trip of seventy-five miles. Mauna Loa's pit continually gives off jets of steam, and in 1926 a flow of lava came from a rift about five thousand feet



© E. Andrews, Courtesy Alaska Steamship Co.

# **LAST CHANCE BASIN AND GASTINEAU CHANNEL, WITH JUNEAU AT THE RIGHT**

The Gastineau Channel, at the head of which stands Juneau, is a strait connecting Lynn Canal and Skagway. It was near here that the first gold was discovered (in the Glory Hole). Juneau lies at the base of high forested cliffs. It is a rain-swept town with roadways, chiefly plank, built up and down hill at a slant that will allow the water to run off.





© E. Andrews, Courtesy Alaska Steamship Co.

## MOUNT MCKINLEY, THE HIGHEST PEAK ON THE NORTH AMERICAN CONTINENT

This mighty peak towers 20,300 feet above sea level, and on the north and west it rises almost sheer from the tundra. It has been made the nucleus of Mount McKinley National Park.

below the summit which crept down the mountainside. On returning from Hilo to Honolulu by steamer one may stop off to see the crater of Haleakala on the island of Maui. One ought also to see the bird sanctuary of Laysan, an island where there are millions of sea birds.

In olden times the native Kanakas believed that spirits ruled the volcanoes, and young girls were offered as sacrifices to avert threatened eruptions. On Hawaii there were numbers of temples

(heiaus), now crumbled to ruin, with altar stones where weird ceremonies were performed. Some of the poorer natives still live in huts thatched with straw and cook in holes in the ground lined with stones and heated. They raise taro, from the starchy roots of which poi is made, and eat certain seaweeds as well as a variety of fish. Their extraordinary skill at water sports is hinted in accompanying pictures. The native stock, however, is dying out and there are hardly 20,000



Photo E. Andrews, Courtesy Alaska Steamship Co.

## CORDOVA, IN THE PRINCE WILLIAM SOUND DISTRICT, IN THE GULF OF ALASKA

This is the ocean terminus of the Copper River and North Western Railway (The Iron Trail), operated 197 miles into Kennecott, where is located one of the world's largest copper mines. Cordova has large salmon canneries and the natives who work in them live in frame houses. As at Sitka, it rains or snows at least two hundred days a year.



## FAR LANDS OF TREASURE AND ROMANCE

Hawaiians of the full blood left, and a somewhat larger number of part Hawaiians. Japanese form the largest element of the remaining population with Filipinos next, and lesser numbers of Americans, Portuguese, Chinese and others. There is much intermarriage and the future population will be a mixture of many races.

### *Sugar and Pineapples*

The islands export quantities of sugar raised according to the most scientific methods. Canned fruit, especially pineapple, is the export second in rank. The pineapple growers have a curious way of keeping the moisture in the soil and incidentally of keeping down the weeds. Heavy strips of wrapping paper are stretched along the ground until the field presents a striped appearance. The young plants are set in holes punched through the paper.

The islands make a convenient stopping-place for vessels plying between San Francisco or Vancouver and the Orient, Australia or the Philippines. Oahu is an important naval station and military outpost of the United States, and the Midway Islands—1,232 miles from Honolulu—are a cable relay station and a post of the U. S. Marines, and must be mentioned. Molokai has a leper colony.

A university was established at Honolulu in 1907. There is a marine biological laboratory, industrial and agricultural extension work, besides which the Japanese have a number of separate schools conducted in their own language. A traveling library supplies library stations. In fact, education ranks high in Hawaii.

### *The Extent of Alaska*

As for Alaska, were a map of it superimposed on a map of the United States, it would reach from Lake Superior to Colorado, and the "Panhandle" would extend to the coast of Georgia, while the Aleutian Islands would touch the Pacific. Yet the population averaged less than one-tenth of a person to the square mile in 1920. There are distinct climatic areas. The Panhandle and the entire south

coast, along the Alaskan Peninsula to the Aleutian Islands, is a mountainous country, with extraordinarily heavy rainfall. On the seacoast the extremes of cold and heat are moderated, dark forests grow up the mountain slopes, and while the trees are not extremely large, they would supply a considerable paper industry. The tourist sailing up the Inside Passage from Puget Sound between the mainland and its bordering islands sees countless waterfalls that pour over the cliffs, and glaciers that creep down the valleys, to break off into bergs.

### *The Basin of the Yukon*

The interior is practically the basin of the great Yukon River, which, after winding across the country from the east, empties into Bering Sea. The northern and southern boundaries of this interior region are formed by mountain ranges; the country is rugged with much forest, chiefly evergreen. The thermometer frequently drops to 60 degrees below zero in the star-lit winters, while in the short summers, so near the midnight sun, it may reach 100 degrees in the shade. But snowfall is comparatively light and the air is clear.

Another climatic area is the strip of coast along Bering Sea and the wider prairie along the Arctic Ocean. It is treeless except that small willows and alders are seen along the margins of streams.

The mountains of the farthest north are not so high as those of the ranges to the southward. The climax of the Alaskan Range, Mount McKinley, called by the Indians Denali, "home of the sun," rises to 20,300 feet, and is the highest peak in North America. In 1917 Mount McKinley National Park was created. Many of the glaciers of this region are so little crevassed that they may be used as routes of travel. The black spruce is the characteristic evergreen of the park, although the southern rainy zone has more western hemlock, Sitka spruce and cedar. In the park, as elsewhere, one finds paper birches, cottonwoods, quaking aspens and willows, while gentians, lupins and other wild flowers brighten the open spaces.



## FAR LANDS OF TREASURE AND ROMANCE

Alaska has much wild game, giant moose, caribou, mountain sheep, wolves and many species of bears, some found nowhere else, and including the largest known specimens. Foxes there are in great variety, together with "snowshoe rabbits" that change from brown to white to match the season, and hoary marmots ("whistlers"). Willow ptarmigan that turn white when snow falls are plentiful. Hordes of migrant birds make Alaska their summer nesting-grounds and feed on the abundance of seeds and insects. Wild berries grow abundantly; and it is possible to raise vegetables and even grains in places.

Vitus Bering discovered the Strait which separates Alaska from Siberia in 1728. Siberian fur-traders followed, and Captain James Cook surveyed a portion of the coast in 1778 before his ill-fated return to Hawaii. Greek Catholic missionaries came in the early days of Russian occupation and a white settlement was made on Kodiak Island in 1783; but even in 1867 when the United States purchased the country from Russia for the sum of \$7,200,000, Alaskan resources were practically unknown. Although gold was mined at Juneau after 1880, little was

known of Alaska until the gold rush of 1896 to the neighboring Klondike and gold seekers made their way from Skagway over the mountains to the Yukon. Then the discovery at Nome in 1899 precipitated an extraordinary gold rush to Seward Peninsula, and a city of tents sprang up. In time frame buildings and hydraulic mining followed, and to-day some of the very miners who at first washed the precious yellow dust by hand, after melting the frozen earth with boiling water, employ the most powerful mining machinery. Since 1880, gold to the value of nearly \$360,000,000 has been mined in Alaska, and copper to the value of \$188,000,000. Copper was found at Prince William Sound in 1901 and the famous Bonanza Mine of the Copper River region a decade later. Alaska also has coal, the development of which was long retarded by controversies and by lack of transportation facilities. There are many other minerals, but gold and copper are by far the most important.

To-day the Alaskan fisheries are of greater importance than mining. Salmon abound and are taken in huge hauls every year when they come to spawn. The first salmon cannery was erected in 1878 and



© E. Andrews, Courtesy Alaska Steamship Co.

### THE SKAGWAY AND LYNN CANAL, TERMINUS OF ONE ALASKA S.S. ROUTE

Skagway (the Indian word Skag-waugh meaning Cruel Wind) was a "boom" town of the gold days. One trail to the Klondike started from this point across the mountains to White Pass, and one from neighboring Dyea over Chilkoot Pass. The White Pass & Yukon Route rail line was soon built, for which supplies had to be brought a thousand miles.



## FAR LANDS OF TREASURE AND ROMANCE

salmon now constitute about three-quarters of the output of the fisheries. Some cod and halibut are also taken, together with whales and herring, but the seal fisheries of Pribilof Islands are of more consequence. These contain about 85 per cent of the fur seals of the world and in 1927 numbered 808,870 animals. These are in charge of the Federal Department of Commerce.

Sawmills hum along the south coast and timber is conserved in two vast National Forests which total over 20,000,000 acres. In this same general region, blue fox ranches have been established and are raising some 36,000 foxes for the fur trade. While northeastern Alaska is cold and treeless, Arctic reindeer have been imported from the Old World as domestic animals since 1892 and have increased enormously. Two-thirds are owned by Eskimos, and it is estimated that the region would support 4,000,000 reindeer. The meat is becoming an article of export.

About 20,000 people come each year for a few months' work. The permanent population, about half white, numbered scarce over 55,000 at the last census report, and while there were 18 incorporated towns, the capital, Juneau, contained but

3,058 and the others were much smaller. Although the Eskimos and Indians keep the average of illiteracy at twenty-five per cent, there are at least eighty-five native schools. The larger towns have perhaps half as many women as men. Nearly every town has its women's club and the social life is cordial.

While there are few railroads, the southern ports are open the year around and the Yukon River is navigable about half the year. There are over 1,500 miles of wagon roads supplemented by over 1,000 miles of sled roads and 6,671 miles of trails. Most winter travel is by sleighs drawn by horses or reindeer, and dog teams are still used. They bring winter mail to remote regions and in summer serve as pack-animals for many a lone prospector. Dog races are great sporting events at Nome.

Latterly Alaska has achieved a network of air routes with fifty-seven graded airports for summer flying, while there is talk of floating hangars for use in winter. Alaskan timber and power reserves have been mapped from naval planes and Captain Hoyt's flight from New York to Nome in thirty-eight hours shows what can be done in an emergency.

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## UNITED STATES TERRITORIES: FACTS AND FIGURES

*Alaska* includes extreme northwestern part of North America and adjacent islands. Bounded on the north by Arctic Ocean, south and southwest by Gulf of Alaska and Pacific Ocean, west by Bering Sea and Strait and east by Yukon Territory and British Columbia. Total area, 590,884 square miles; population (1920), 55,036. Governed conjointly by Congress at Washington and local legislative assembly of 8 senators and 16 representatives. Governor and judges appointed by the President of the United States. Salmon-fishing and mining are important occupations. Fur-trapping and fur-farming carried on. Chief exports are fish, copper, gold, silver and furs; chief imports are iron and steel products, other machinery, dairy products and petroleum. Railway mileage, 750; length of telephone wire (1928 estimate), 4,600 miles; telegraph wire, 762 miles. Missions of many denominations at work among the Indians and Eskimos. In 1927 there were 90 white schools with 4,915 pupils; 12 high schools; 88 native schools. Population of towns in 1920: Juneau (capital), 3,058; Ketchikan, 2,458; Anchorage, 1,856.

*Hawaii* consists of a group of islands in the North Pacific Ocean, 8 inhabited. About 2,020 miles southwest of San Francisco. Total area, 6,449 square miles; population (1920), 255,912. Governor, secretary and judges are appointed by the President of the United States. Legislature of 2 houses; Senate of 15 members; House of Representatives of 30 members. Agriculture is chief occupation; sugar and pineapples extensively cultivated; coffee, bananas, rice, sisal, tobacco and cotton are also grown. 210,000 head of livestock in 1927. Chief exports are sugar, pineapples, molasses, bananas and coffee; chief imports are iron and steel goods, mineral oils, vehicles, machinery, grains and grain products. Railway mileage, 1,038, including 667 miles of plantation railway; telephone wire mileage, 64,862. The Hawaiians are Christians. Elementary education is free; 250 schools (public and private) in 1928 with 75,931 pupils; there are normal and technical schools and a university. Population of Honolulu (1928 estimate), 113,000; Hilo, 12,850. Other U. S. possessions in the North Pacific are the Midway Islands and Wake Island.



# THE CITIES OF THE UNITED STATES

## *The Irresistible Movement from Country to Town*

When George Washington became President of the United States the population was almost entirely rural. The only towns of any considerable size were New York, Philadelphia, Boston and Baltimore, and the largest of these, New York, had 33,131 people. In 1920 there were 68 cities with more than 100,000 population, and there are many more now. Three cities had over a million in 1920, and there is certainly one more now. The rapid growth of cities in the United States has been the result of two factors. There has been a movement of the rural population to the city, and a large majority of the immigrant population arriving during the last fifty years has settled in the cities.

NOT so many years ago the United States was a rural nation with all that the word implies. There were few cities, and none was far from the sea or other navigable water. There were more towns, but they existed in large measure to serve the rural population. Many of those who lived in the cities had been born in the country or in villages. The whole attitude of mind was rural. Until somewhere about 1900 the United States was still a rural nation, with agriculture the most important industry, in spite of the existence of some great cities. In 1920 the census showed that 424 people in every 1,000 lived in cities of over 10,000 people and 514 of every 1,000 lived in places of 2,500, or over.

The oldest cities in the United States were founded hardly three hundred years ago. The second city in size is soon to celebrate its centennial as a city. New York has the largest aggregation of people living under one government that has ever been gathered together, but the chief growth has been within one century, while most of the Old World cities with which it or the other great cities of the United States may be compared are much older. They were founded centuries ago and show evidences of their antiquity.

The most astounding thing about the cities of the United States, next to the rapidity of their growth, is their newness. In European cities there are whole streets which have changed but slowly in a century. In many of them are buildings which have stood five hundred years, and even much longer. In New York there is

not a single building of the Dutch period—few of the Revolutionary period. Boston and Philadelphia have some, but they are few in number. The old buildings have been pulled down to erect others. Perhaps the same site has been occupied by two, three or four buildings in turn within a century. An absence of twenty years often makes recognition of a locality difficult.

Most European buildings are low and both law and public sentiment discourage building into the air. In the United States, the cheapness of steel and the development of the high-speed electric elevator have made possible the construction of towering edifices, hotels, apartment houses, business buildings, twenty, thirty, fifty or more stories high. In the great cities the cost of the land affords sufficient justification for such construction, but the buildings are also to be found in smaller cities where land is comparatively cheap, and there would seem to be no economic reason for their erection. Sometimes no doubt they are erected as an advertisement, or else as a sort of monument.

The erection of these great buildings on an ordinary street darkens it, of course, and also cuts off the light from lower buildings. In some cities the "set-back" construction is required. A building may be erected only a certain height (depending upon the width of the street) on the building line. Any additional height must be set back in steps as the height increases. We see, therefore, many recent buildings with a certain resemblance to pyramids. We are told that this was the plan of one





BROADWAY AND FIFTH AVENUE, GARY, INDIANA, IN 1906 AND IN 1929

Gary, at the southern end of Lake Michigan, is the creation of the United States Steel Corporation. Now a city of boulevards, motor busses and bathing beaches, it contains the largest steel works in the country, together with tin-plate mills, rail mills and cement works. But it was, as lately as 1905, a tract of sand dunes and swamps.



## THE CITIES OF THE UNITED STATES

of the wonders of the ancient world, the Hanging Gardens of Babylon.

In one of these great buildings hundreds, even thousands, of people work, and when the day's work is done

walks and crowd all the public conveyances to suffocation, while the motor cars crawl along the streets. None of the men who laid out the streets and sidewalks of our cities ever dreamed of such aggregations of people attempting



Photograph by The Dadmun Co.

Courtesy Boston & Maine Railroad

### RELICS OF REVOLUTIONARY BOSTON STAND NEIGHBOR TO THE NEW

Faneuil Hall, "the Cradle of Liberty," is still a public forum and Old South Church was once used for town meetings. The Custom House Tower rises high above the business district.



to congregate in such narrow limits. Congestion in the great cities becomes more and more of a problem. At several points in New York there is an elevated railway above, one or more subway lines under the earth, and between them the street along which street cars and busses pass. Double-decked streets have been suggested, and Chicago has already built a double-decked street to carry traffic over a double-decked bridge.

Meanwhile some attention has been given to relieving the situation as much as possible. Streets have been widened, often at enormous expense. In some cities, traffic is permitted to move in one way only along many streets, parking is forbidden, and an elaborate system of signals has been developed to avoid the danger of crossing at right angles. These, and other devices, make movement possible but often very tiresome and inconvenient.

With the growth of huge cities have come great changes in the manner of life of the residents. Not so many years ago, except in a few cities, every family save the poorest occupied a detached house. In a few cities houses were built in solid blocks and all light and air came from front and back. Within fifty years a larger proportion of the population has come to living in a section of a house. Some of these houses are only a few stories high and each family has a floor or a part of a floor. Other apartment houses tower high into the air, ten, fifteen or more stories, and some of them house a hundred or more families. Heat and hot water are furnished from a central plant, and much of the drudgery of housekeeping is eliminated. These houses differ in many particulars. Some of the apartments are plain and bare while others are ornate. Some may have only a single room and bath while others may consist of twenty or more rooms, perhaps on two floors. The rental varies from a few dollars to several thousand a month.

When towns are small, it is often possible for business men or mechanics to walk to their work. As the city grows larger, the rising rents sometimes force



#### CHICAGO: AERIAL VIEW

The photograph shows the Loop District and part of the North Side, with the Navy Pier (formerly the Municipal Pier) extending for three thousand feet into Lake Michigan.





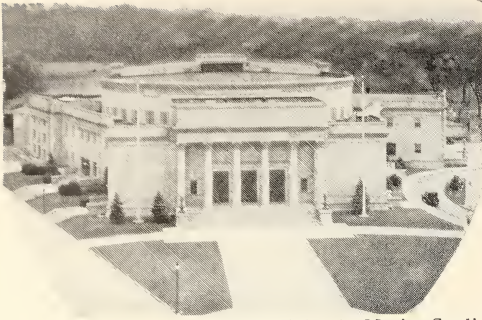
Chicago Aerial Survey Co.

### GREATEST RAILROAD CENTRE IN THE UNITED STATES OF AMERICA

The city proper covers more than two hundred square miles, for many wealthy people, disliking coal smoke, reside in the suburbs; but the skyscrapers, hotels and office buildings are largely crowded into the Loop (formed by the elevated railroad) which is enlarging toward the north-west. This shows a glimpse of the Chicago River and drainage canal.



## THE CITIES OF THE UNITED STATES



Photograph by the Marion Studio

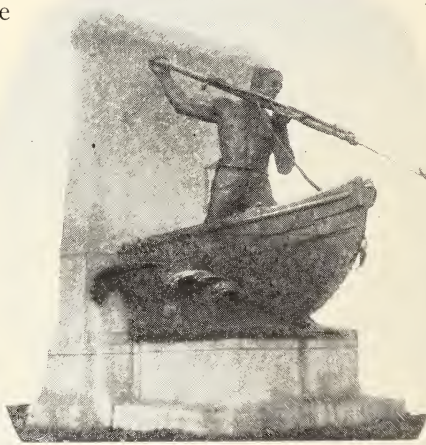
### MEMORIAL AUDITORIUM, LOWELL

the workers to live at a considerable distance from their work. Many leave the city to live in the suburbs, ten, twenty or thirty miles away, where there is more room, as well as better

light and air. Every large city is now ringed around with suburban towns where workers come to sleep. Many of these suburbs are exceedingly attractive with handsome residences, surrounded by flowers and shrubbery, set along tree-lined streets. Others are hopelessly drab.

In the pages following we shall take up the four great groups of states into which we have divided the United States, and mention some of the leading cities in each. Since the population is not evenly spread over the country we shall find that what passes for a considerable city in

one of our divisions would be considered only a town in another. There are more cities, as a rule, in those sections where there are many factories, while in farming regions there are fewer.



Courtesy New Bedford Board of Commerce; inset, photograph by Theo P. Chase

### NEW BEDFORD'S CIVIC CENTRE AND STATUE OF THE WHALER

This shows Pleasant Street, the library, municipal building and post office and (above) the statue by Bela Pratt, from the monument commemorating New Bedford's whaling days.



## CITIES OF THE NORTHEASTERN STATES

The groups of states which we have classed together as the Northeast are the most densely populated of the Union, largely because of the number of cities. Of the ten largest cities in 1920, the section contained five—New York, Philadelphia, Boston, Baltimore and Pittsburgh—and there were twenty-two others with more than a hundred thousand population as well as dozens below this arbitrary figure.

The New England cities are chiefly in the three southern states. Maine has no large city. Portland, sometimes called the "Forest City," is beautifully situated on a peninsula projecting into Casco Bay. Longfellow was born here. Bangor and Lewiston are the cities next in size. New Hampshire, likewise, has no very large

city. Manchester, the largest, is a centre of cotton manufacture, and the mills were long among the largest in the world. Nashua, the next in size, is also a manufacturing city. Concord, the capital, was for a time the residence of Count Rumford, the famous scientist. Vermont had no city with over 25,000 in 1920. Burlington, on Lake Champlain, an important lumber city, is the largest, while Rutland and Barre, both deriving their importance from quarries of marble and granite, are next. The state is famous for the production of both these stones. Some are very beautiful.

Massachusetts, on the other hand, is full of cities. Boston is the largest, and an adequate description and history of the "Hub of the Universe" would fill a

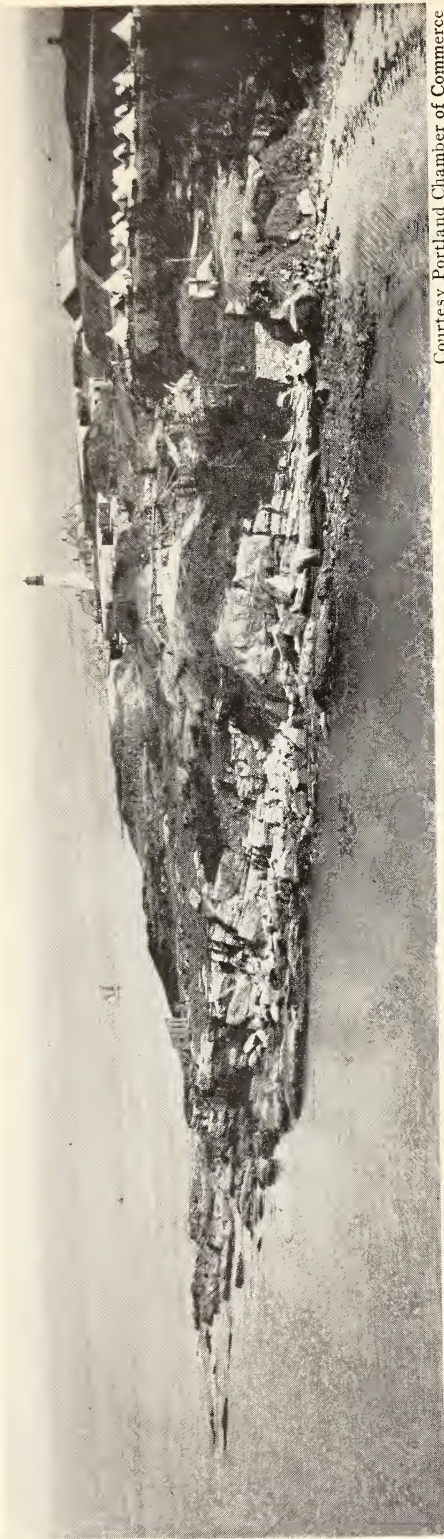


Courtesy Lawrence Chamber of Commerce

### HEART OF LAWRENCE, MASSACHUSETTS, BISECTED BY THE MERRIMAC

Planned by Abbott Lawrence and other Boston capitalists as an industrial capital, Lawrence is dominated by mills which line the river and the canals which parallel it, and the population is over forty per cent foreign-born. Worsteds cloth is now the leading manufacture. The public buildings are arranged around a large common.

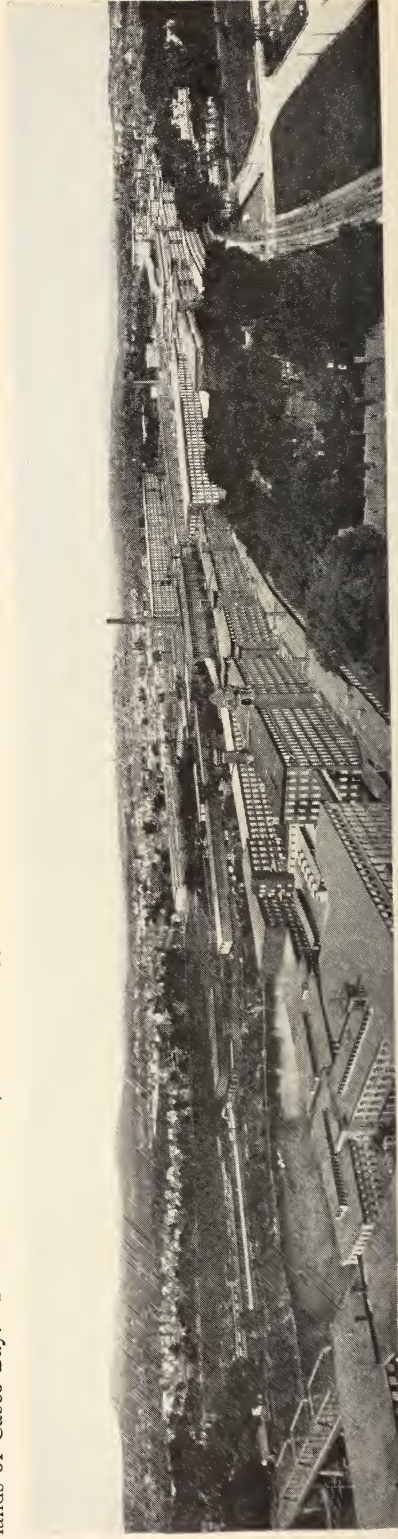




Courtesy Portland Chamber of Commerce

#### PORTLAND'S EASTERN PROMENADE OVERLOOKS LOVELY CASCO BAY

Maine's foremost port city includes two peninsulas and some of the islands of Casco Bay. The first settlement, made in 1653, was destroyed by the Indians. Many eighteenth-century houses are still to be seen in a good state of preservation. Many distinguished people were born here.



#### THE MILLS OF THE AMOSKEAG MANUFACTURING COMPANY AT MANCHESTER, NEW HAMPSHIRE

Here stands the world's largest textile plant, which was incorporated in 1831. It annually uses fifty-five million pounds of cotton. Its operatives live in blocks of red brick houses built in the early days. The power is derived from the falls of the Merrimac River.





Art Photo Co.

### SPRINGFIELD'S AUDITORIUM AND MUNICIPAL BUILDING AND CAMPANILE

This Massachusetts city, founded in 1636 on the Connecticut River, is characterized by parks and tree-shaded avenues. The above "municipal group" was designed by Pell and Corbett. Springfield has an arsenal established by the Continental Congress during the Revolutionary War.

The seat of the first gun factory of the United States Government, the city still manufactures small arms for the Army. The varied manufactures employ chiefly skilled labor. The Springfield Republican has influenced public opinion since its foundation in 1824.





© Baldwin Coolidge, courtesy Boston Museum of Fine Arts

# **BOSTON MUSEUM OF FINE ARTS, ROBERT D. EVANS MEMORIAL GALLERY**

The Boston Athenæum led to the founding in 1870 of one of the foremost art museums in the United States. The present structure, in part shown above, was opened in 1909. It contains paintings and statuary by eminent masters from the most ancient times to the present, as well as collections of Oriental art, tapestries, ceramics and metal work.

volume. The original settlement on Massachusetts Bay has spread many miles into the land. The city is one of the most important commercial and manufacturing cities in the East, and thousands of vessels enter the harbor every year. Boston capitalists have invested their money in every part of the world. For the greater

part of the nineteenth century Boston was the literary centre of the United States and many of the leading figures in American letters had their homes in and around the city. Thousands of visitors every year come to view the many historic and literary shrines. Cambridge, just across the Charles River, was founded as "Newe



Courtesy Newport Chamber of Commerce

# **ALONG NEWPORT'S CLIFF WALK, SHOWING TWO SUMMER "COTTAGES"**

Although the "Old Town" with its narrow thoroughfares still rises behind the harbor, Newport has come to be known chiefly as a fashionable summer resort. In 1770 Newport's "triangular trade" was greater than that of New York City, for native rum was exchanged for slaves from Africa, which were traded in turn for sugar and molasses in the Barbados.

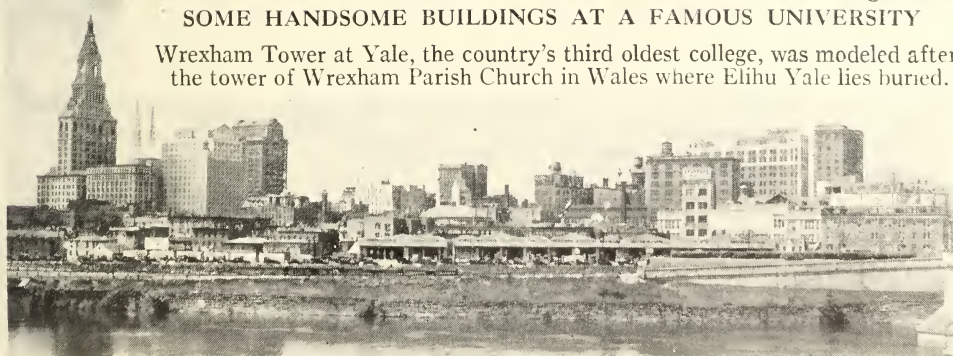




© E. N. A.

### SOME HANDSOME BUILDINGS AT A FAMOUS UNIVERSITY

Wrexham Tower at Yale, the country's third oldest college, was modeled after the tower of Wrexham Parish Church in Wales where Elihu Yale lies buried.



Photograph by George E. Meyers, courtesy Hartford Chamber of Commerce

### HARTFORD, CONNECTICUT, SHOWN FROM ACROSS THE RIVER

The first settlers named the town for Hartford in England. There is a white marble capitol and a park system of twelve hundred acres. Memorial Bridge is seen at the right.



## THE CITIES OF THE UNITED STATES

Towne" almost as soon as Boston. Though it has many factories it is best known as the seat of Harvard University—the oldest institution of higher learning in the United States—and of the Massachusetts Institute of Technology, lately transferred from Boston.

The next city in size is Worcester, in the centre of the state, noted for its manufactures and also as an educational centre. Springfield to the southeast is the site of a United States Armory where the Springfield rifle is made. The municipal buildings form an imposing group. New Bedford was once the leading whaling port, but is now chiefly engaged in the manufacture of cotton. Fall River, only a few miles away, is also a great textile city, as is Lowell, northwest of Boston. Lynn, near Boston, became a centre of the shoe industry in colonial days. Somerville adjoins Boston but maintains a separate government. There are many smaller cities, most of which depend upon their factories, though some are suburbs.

There is only one important city in Rhode Island, Providence, the state capital and the seat of Brown University. It is the leading city in the manufacture of jewelry and silverware and has many other factories. Newport, though much smaller, is a famous summer resort. Crossing into Connecticut we find three cities which had over a hundred thousand in 1920. New Haven, the "Elm City," was founded in 1638, and is the seat of Yale University, and has also many factories. Bridgeport, on Long Island Sound, is one of the most important manufacturing cities in New England, making sewing machines, small-arms, ammunition and many other articles. Hartford, the capital, on the Connecticut River, is likewise an old city. It is a financial, an insurance, and a manufacturing centre, and is also a delightful place of residence. Waterbury, another manufacturing city, was made famous by its cheap watches, but has varied manufactures.

Crossing into New York, we find in



Photograph by Fairchild Aerial Surveys, Inc.

### AEROPLANE VIEW OF THE BUSINESS DISTRICT OF NEWARK, NEW JERSEY

Newark began as a Puritan stronghold and has become an important manufacturing centre. It originally produced shoes, patent leather and jewelry, but now turns out diverse products.





Photograph by Ewing Galloway

#### THE SKYLINE OF LOWER MANHATTAN SEEN FROM GOVERNORS ISLAND

The lower tip of Manhattan is a mountain of skyscrapers, the tallest of which, the Woolworth Building (the top of which is seen at left centre), is sixty stories, 792 feet high, and may be ascended by elevators for a view from an open balcony. The Singer, Equitable and Transportation

buildings are a few of the tallest in this part of New York City. The Battery, where ferries connect with Staten Island and Brooklyn, shows at the centre of the pile. The exceptional harbor has gone far toward making New York the largest city in the United States.



## THE CITIES OF THE UNITED STATES

the most populous state, a corresponding number of cities. Any full description of New York City would require a large volume. Founded by the Dutch, captured by the English, it did not grow rapidly until after the completion of the Erie Canal which made it the gateway to Europe for the West. Situated at the mouth of the Hudson it has a magnificent harbor in which vessels from every port of the world may be found. Originally the city was confined to Manhattan Island, but in 1897 Brooklyn, across the East River, and many towns and villages were joined into Greater New York.

The city has the largest population, the highest buildings, the most crowded streets and subways, the most expensive government, the largest newspapers, the greatest banks, the largest university and

the greatest free college, the most theatres, and dozens of other greatest or largest things which we must omit.

Next in size is Buffalo, beautifully situated on Lake Erie. Much of the commerce of the Great Lakes originates in, or passes through, this city which manufactures a wide variety of products. Rochester, on the Genesee River, famous for its manufacture of cameras and photographic supplies and many other articles, is the next city in size. In the centre of the city are the historic Falls of the Genesee. The University of Rochester is an important institution. Syracuse, on Onondaga Lake, owed the beginning of its prosperity to the manufacture of salt, but other manufactures are now more important. The University of Syracuse is a large institution with many departments.



Courtesy Rochester Chamber of Commerce

### DOWNTOWN DISTRICT OF ROCHESTER BISECTED BY THE GENESEE RIVER

This shows Broad Street, which has recently been built over the interurban subway, with the Central Library rising between the two streets. The river, which is spanned by a dozen bridges, has cataracts which supply water power for extensive manufactures, including flour-milling and the making of moving picture film. There are 1,650 acres of parks.





Courtesy Buffalo Chamber of Commerce

# **BUFFALO'S ALBRIGHT ART GALLERY, HARBOR AND DELAWARE AVENUE**

The site of Buffalo, located at the upper end of the Niagara River on Lake Erie, was known in 1763 as "the Buffalo Creek region," perhaps from the bison said to have come to the salt-licks. It ranks fourth or fifth among United States ports. The outer harbor is protected by a break-water. The inner harbor and a fashionable street are shown above.



## THE CITIES OF THE UNITED STATES

Albany, an old Dutch foundation on the Hudson, became the state capital in 1797. The old Erie Canal, now much enlarged, extended from Albany to Buffalo. Yonkers, another Dutch foundation, is separated from New York only by an imaginary line. Though in some ways a suburb of the greater city, it has a life of its own. Utica, on the Mohawk River and the Barge Canal, is a great cheese market and a centre of the knit-goods industry. Schenectady, only a few miles from Albany, is renowned for its electrical works.

dential city. It was the original site of the college which is now Princeton University. Though the permanent population of Atlantic City is not so great as that of the other New Jersey cities mentioned, on many days it is greater because of the thousands of tourists on the Boardwalk and the sands, or in its magnificent hotels.

Philadelphia, the largest city in Pennsylvania, is another old and famous city. Here the Continental Congresses met, here the Declaration of Independence was voted, and here the Constitution was made.



Photograph by Ewing Galloway

### PITTSBURGH, THE "STEEL CITY," FROM ACROSS THE MONONGAHELA

The elimination of smoke from this railroad and manufacturing centre is being brought about by the use of natural gas. Factories extend for miles along the river banks and the important business buildings are largely crowded within the "golden triangle" formed by the confluence of the Allegheny and Monongahela rivers which join to form the Ohio.

Union University is here. As in Massachusetts, there are many smaller cities.

The largest city in New Jersey is Newark, a prosperous manufacturing city, with excellent public buildings. Jersey City, just across the Hudson from New York, is the terminus of several railways and of several transoceanic steamship lines, and also has many factories. Paterson is a famous silk centre, while Trenton, the state capital, is famous for its pottery. Camden, across the Delaware from Philadelphia, has much the same industries as the greater city. Elizabeth is a growing manufacturing and resi-

For ten years (1790-1800) it was the capital of the young nation. It is now the third city of the Union, with over two million people, many historic buildings, as well as fine modern structures, imposing public buildings, famous educational institutions and thousands of factories of various kinds. Fairmount Park is one of the largest and finest city parks to be found anywhere.

Pittsburgh, built on the site of Fort Duquesne, where the Allegheny and the Monongahela join to form the Ohio River, is the greatest iron and steel city in the world and has many other important in-





© Photo Aero Service Corp.

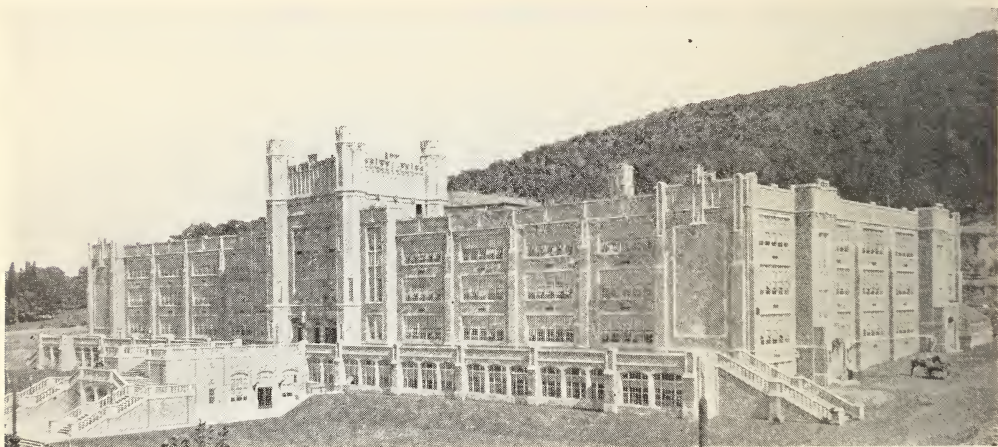
#### AIR VIEW OF PHILADELPHIA'S PENNSYLVANIA ART MUSEUM (1928)

Philadelphia, named by William Penn and the Society of Friends from the Greek for "brotherly love," ranks third in the United States in manufactures. Its Academy of Fine Arts, founded in 1805, was the first art institute in the United States. The picture shows the sites reserved for the Pennsylvania Academy of Fine Arts and School of Industrial Art.



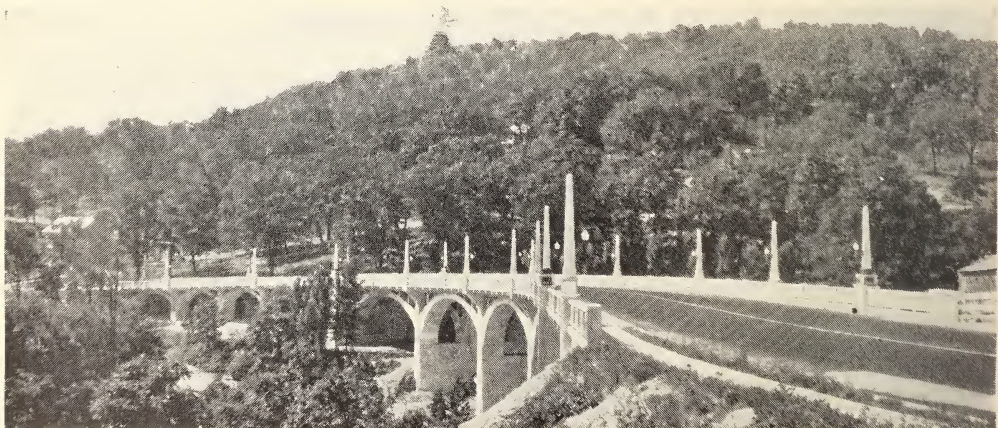


INTERNATIONAL CORRESPONDENCE SCHOOLS, SCRANTON, PENNSYLVANIA



Courtesy Reading Chamber of Commerce

SENIOR HIGH SCHOOL BUILDING AT READING, PENNSYLVANIA

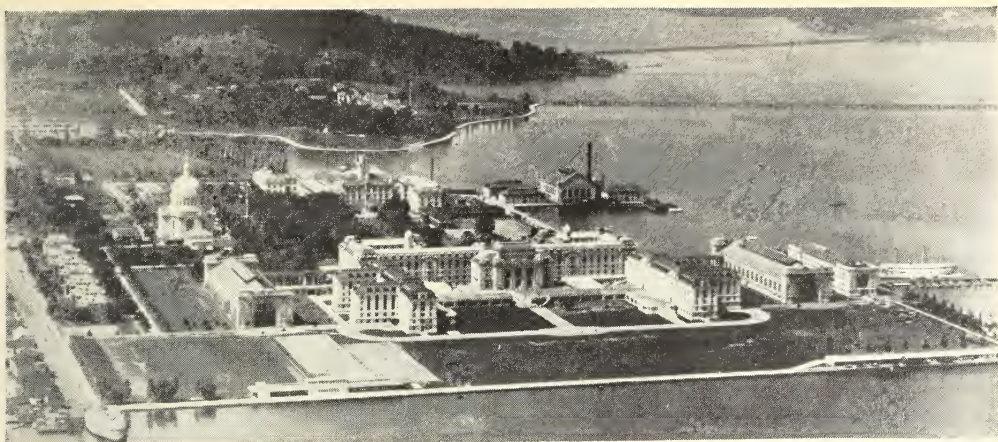


Courtesy Reading Chamber of Commerce

THE LINDBERGH VIADUCT, ON A SCENIC DRIVE NEAR READING

Reading, in southeastern Pennsylvania on the Schuylkill River, was founded by sons of William Penn and to-day has an unusual percentage of native white population. "Pennsylvania Germans" predominating. Sites of early iron furnaces may still be seen near by. Penn Common is one of a number of recreational centres, and a boulevard leads to Mt. Penn.





Official photograph, U. S. Army Air Corps

# UNITED STATES NAVAL ACADEMY, ANNAPOLIS, MARYLAND



Courtesy Baltimore Association of Commerce

# HOME OF CHARLES CARROLL ON JOHNS HOPKINS UNIVERSITY CAMPUS



Photograph by Curtiss Flying Service

# LOCUST POINT, BALTIMORE, SHOWING STAR-SHAPED FORT McHENRY

It was the flag from this fort that inspired Francis Scott Key to write the national anthem. Charles Carroll was one of the signers of the Declaration of Independence and his home, beautifully preserved, stands on the grounds of the Johns Hopkins University at Homewood.

Baltimore, on a deep-water estuary of Chesapeake Bay, dates from 1649.



## THE CITIES OF THE UNITED STATES

dustries including the largest pickle factories. Scranton, in the centre of the anthracite coal fields, naturally manufactures iron and many other things. Reading is also an iron town, and Erie, on Lake Erie, is an important port.

Maryland has only one important city, Baltimore, the "Monumental City," a busy port, a great manufacturing city, and a delightful place of residence. The inhabitants claim that they have the best food to be found anywhere. Johns Hopkins University and Hospital are here. Delaware also has only one large city, Wilmington, originally a Swedish settlement. Ship-building, manufactures and commerce all contribute to its prosperity. The manufacture of powder has been carried on here for more than a century.

There are so many cities in this section of the United States that we have been

compelled to draw an arbitrary line somewhere. In most cases this has been at a population of one hundred thousand. This limitation is, in many ways, unfortunate, since many cities with a smaller population are more interesting historically, and also more beautiful, than some which have been mentioned. Many of the towns most important in the history of the nation have not grown into cities.

For example, Salem, Massachusetts, is a beautiful city with many attractive old mansions, built by merchants and sea captains. Annapolis, Maryland, is another beautiful town to which the aroma of the past still clings. Northampton, Massachusetts, is a delightful old town, while Lexington and Concord, in the same state, though famous in history, have remained small in population. Plymouth, likewise, has not become a city.

## CITIES OF THE SOUTHERN STATES

When we come to the South we must make a different definition of a city, for the South has few cities above a hundred thousand. In Virginia there are only

Richmond and Norfolk. Richmond on the James, the capital, and also the capital city of the Confederacy, is said to stand on the site of the home of the Indian

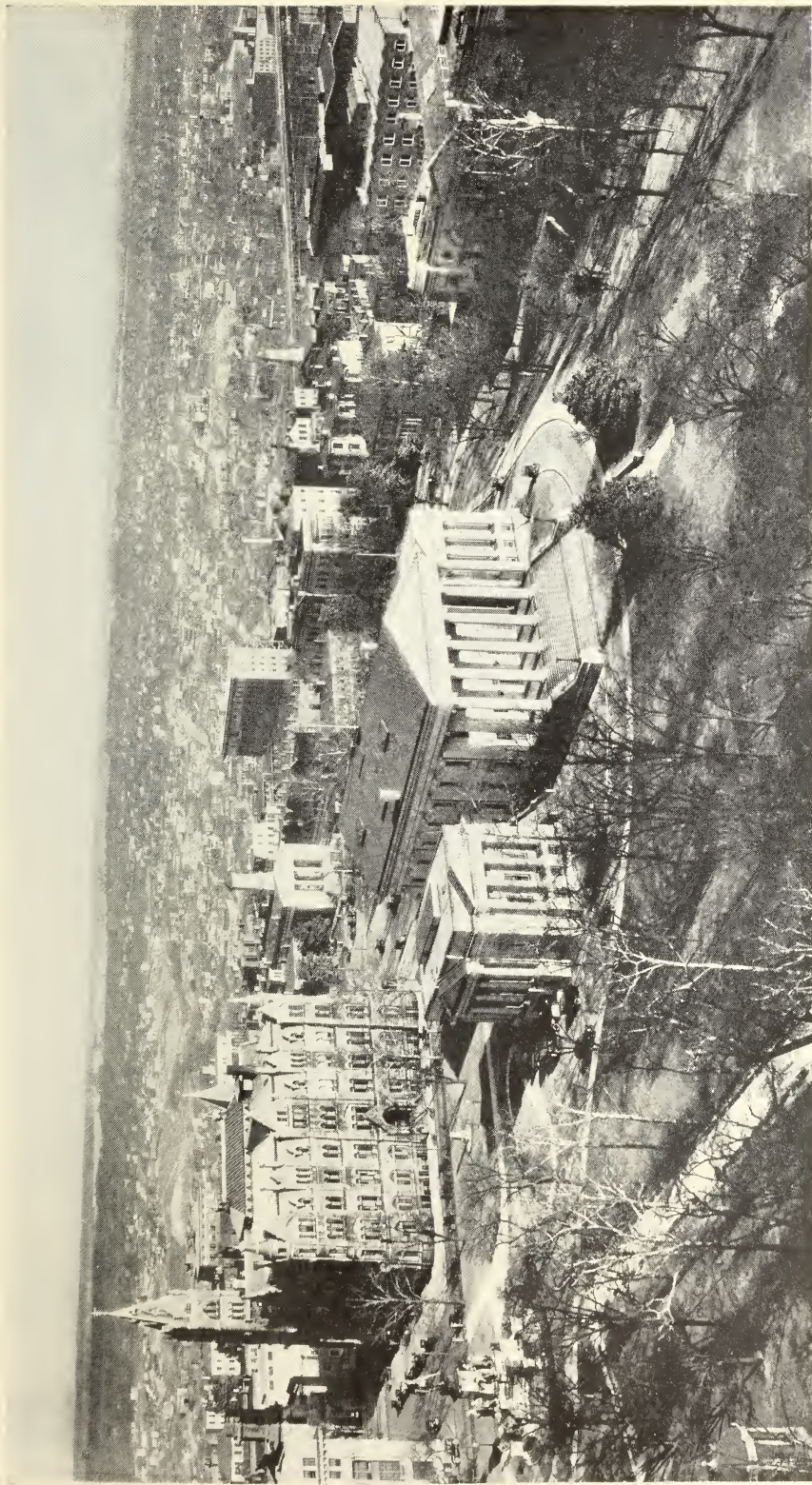


Photograph from the Asheville Postcard Co.

### ASHEVILLE, NORTH CAROLINA, ON A 2,300-FOOT APPALACHIAN PLATEAU

Asheville, picturesquely located between the Blue Ridge and the Great Smoky mountains, is an all-the-year-round resort. Within a short distance are four national forest reserves.





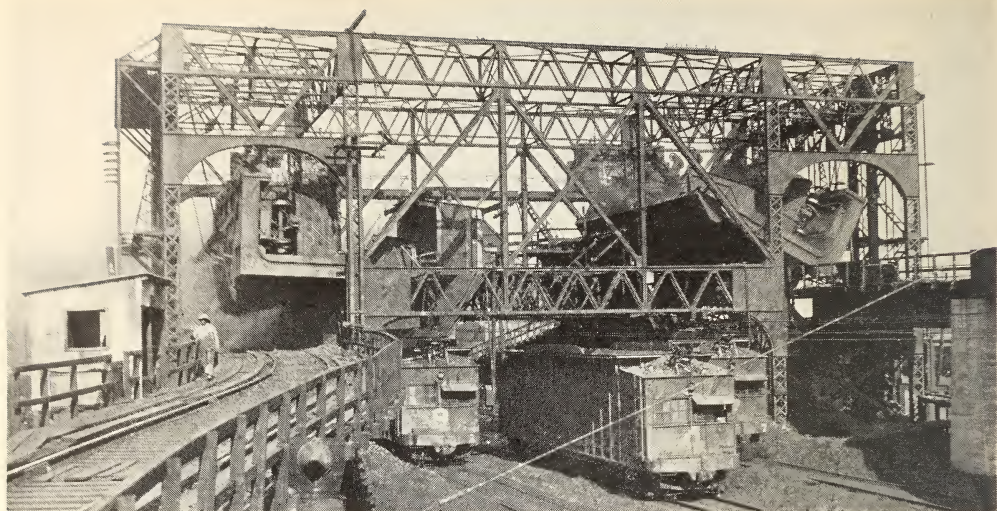
Photograph by Dementi Studio

#### AEROPLANE VIEW OF RICHMOND, VIRGINIA, OLD STATE HOUSE IN FOREGROUND

The capital of Virginia, built around a bend in the James River, now spreads far beyond its original seven hills. The centre section of the capitol was built after designs prepared from a model of the Maison Carrée at Nîmes which Jefferson obtained while minister to France. The

wings were built later. In this building Aaron Burr was tried in 1807, here the Virginia Secession convention met in 1861 and here the sessions of the Confederate Congress were held. Here also stands Houdon's statue of Washington, the only one for which he ever posed.





**NORFOLK AND WESTERN COAL PIERS AT NORFOLK, VIRGINIA**

The upper photograph shows how the cars are lifted bodily from the rails and tipped for unloading. In 1927 the railroads of the United States dumped over nineteen million tons of coal here at the world's largest coal port. Besides coal for export and coastwise trade, coal is required for the Navy's chief fuel-reserve depot, which is at Norfolk.



Courtesy Norfolk-Portsmouth Advertising Board

**COAL OF VARIOUS GRADES AWAITING EXPORT AT NORFOLK, VIRGINIA**

The city owes much of its importance as a seaport to its location, with fifty miles of water frontage, on Hampton Roads, Chesapeake Bay; for here is one of the world's finest harbors, one capable of providing anchorage and berthing space for a thousand ships at one time. Fully two-thirds of the shipping of Hampton Roads moves through Norfolk Harbor.





Photographs from Reeves Studio and Chamber of Commerce

### PEACHTREE STREET UPTOWN AND DOWNTOWN, ATLANTA, GEORGIA

Atlanta lies rimmed about by the foothills of the Blue Ridge Mountains. As it was almost completely destroyed by Sherman's raid in 1868, everything is fairly modern. Peachtree Street downtown is lined with high business buildings but away from this section is a shady residential street with many fine homes. The city is the commercial centre of the South.





Photograph by The Overbey Studio

# **GRAY-GREEN SPANISH MOSS DRAPING THE TREES ALONG MOBILE BAY**

Excursion steamers ply these waters, houseboats with electric lights are numerous and sportsmen bring back tarpon, red snapper and Spanish mackerel. Mobile lies at the head of this bay thirty miles from the Gulf of Mexico and, beginning with 1711, was for a time the residence of the governor of the French settlements along the Gulf of Mexico.

chief Powhatan. It is one of the most interesting cities to be found anywhere. Norfolk has a magnificent harbor, and has been an important port of Virginia for 250 years, and with the neighboring towns of Newport News, Portsmouth and Hampton, is an important naval base. West Virginia has no large city. Wheeling and Huntington are the largest.

North Carolina, likewise, has no large city, though several are growing rapidly. Charlotte, surrounded by cotton mills, and Winston-Salem, with its immense tobacco factories, are the largest. Wilmington is the chief port, and Asheville, among the mountains, is a delightful resort. Raleigh, the capital, is a pleasant little city, while Durham has large tobacco factories, and is the seat of Duke University. The University of North Carolina is at

Chapel Hill, only twelve miles away. The chief city of South Carolina is historic Charleston, not large in size, but unsurpassed in beauty and charm.

Atlanta, the capital and largest city of Georgia, was destroyed by fire during the Civil War, and the new city is bustling and thriving. Savannah, on the river of the same name, is the principal port. It is an old city with many interesting sights for the visitor. Augusta, farther up the river, has some of the finest streets in the Union. Alabama has one considerable city, Birmingham, the southern centre of the iron and steel industry. Mobile, on Mobile Bay, is the chief port. Montgomery, the capital, is an attractive little city. The Confederate government was organized here. Mississippi had no city even of 25,000 inhabitants in 1920.





STERICK TOWER, A NEW "SKYSCRAPER" OF MEMPHIS, TENNESSEE



Courtesy Memphis Chamber of Commerce

#### A MARKED CONTRAST: THE SHELBY COUNTY COURTHOUSE AT MEMPHIS

Memphis, the largest city in Tennessee, is the largest river cotton market and the largest hardwood lumber market in the United States. The city is built on bluffs over fifty feet above the flood line, and has advantage of water, rail and highway transportation. One of the two cantilever railway bridges over the Mississippi carries vehicles.





© E. N. A.

**ST. MICHAEL'S CHURCH, MEETING STREET, CHARLESTON, SOUTH CAROLINA**

The cornerstone of this church was laid in 1752 and the chimes and organ were brought from England. Both Washington and Lafayette worshiped here. The structure has survived cyclone and earthquake and the cannon of the Revolution. Charleston has many other relics of the eighteenth century—houses with pillared porticoes and wrought iron gateways.





Courtesy St. Augustine Chamber of Commerce

#### ST. AUGUSTINE POST OFFICE, FORMER SPANISH GOVERNOR'S MANSION

St. Augustine, on the northeast coast of Florida, is the oldest town in the United States, and one may see in Fort Marion, once the Castle of San Marco, an example of Spanish military architecture. The post office above was the Spanish government building. On August 28, 1565, St. Augustine's Day, Pedro Menéndez de Avilés sighted the coast of Florida.



© Caufield & Shook, Inc.

#### LOOKING NORTH FROM BROWN HOTEL IN LOUISVILLE, KENTUCKY

This shows some of the tall buildings now being constructed. Louisville lies along the Ohio River, which has been canalized from Pittsburgh. It secures its electric power from the falls, at which is the only Coast Guard station in the interior of the country. Tobacco warehouses line the waterfront. There are 1,514 acres of recreational grounds.





Courtesy Jacksonville Chamber of Commerce

### SKYLINE OF JACKSONVILLE, FLORIDA, ACROSS THE BEAUTIFUL ST. JOHN'S RIVER

Though there were a few houses earlier, the town was formally laid out in 1822 and named for Andrew Jackson. Growth was slow for many years, and in 1901 a disastrous fire destroyed much of the business section. During the present century growth has been rapid, due to the importance

of the city as a distributing centre, and also to the development of manufactures. There are several lines of steamships in both coastwise and foreign trade. The residential districts are charming as many houses have views of the river, and the country is well wooded.





Courtesy Hot Springs Chamber of Commerce

### THE CITY OF HOT SPRINGS, ARKANSAS, FROM WEST MOUNTAIN

Hot Springs, Arkansas, at the base of the Ozark Mountains is a resort city noted chiefly as the site of Hot Springs National Park. Forty-six curative hot springs issue from the mountain slope inside the park, and there are also numerous cold springs reputed to be of medicinal value.

The bathhouses are under governmental supervision. The transient population is about 300,000 in a year. Tradition says that the Indians knew the value of the waters and warred for their possession until finally an agreement gave equal access to all the different tribes.



## THE CITIES OF THE UNITED STATES

Only a few years ago Florida had no cities, but the climate has drawn thousands of settlers from other parts of the Union. Jacksonville, on the St. John's River, is the chief commercial city. Miami, the famous resort on the East Coast, is an old settlement, but its chief growth has come within twenty years. Tampa, on the Gulf Coast, is surrounded by orange and lemon groves and has become a great resort. Though St. Augustine is the oldest town in the United States it is still small, but quaint and interesting.

The largest city of Tennessee is Memphis on the Mississippi River, a great cotton market, and a distributing point



Courtesy New Orleans Association of Commerce  
**ORNAMENTAL LACEWORK IN IRON**



Photograph by Ewing Galloway

### **ST. LOUIS CATHEDRAL ON HISTORIC JACKSON SQUARE, NEW ORLEANS**

The lacework in iron is characteristic of many of the buildings in the old quarter of New Orleans. The square shown above is part of the old French quarter; the Calabozo and Cabildo, government buildings of the French régime, may be seen flanking the Cathedral. The city is rich in historic associations, one of which survives in the annual Mardi Gras.

for goods of many kinds. Nashville, the capital, is a growing city with many factories and also several colleges and universities. President Polk lived here, and the Hermitage, the home of Andrew Jackson, is only a few miles away. Knox-

ville in East Tennessee is situated among coal mines and marble quarries. The state university is here. Chattanooga, also in East Tennessee, on the Tennessee River, is a growing city.

Kentucky has only one large city,





Photograph by Rogers

**SKYLINE OF DALLAS, TEXAS, WITH ITS GREAT "SKYSCRAPERS"**



Photograph by H. L. Summerville

**ALAMO PLAZA AND THE HISTORIC ALAMO IN SAN ANTONIO, TEXAS**



Courtesy Austin and Houston Chambers of Commerce

**QUIET CHARM OF AUSTIN, TEXAS, VIEWED FROM THE STATE CAPITOL**

This broad pavement leads from the capitol, with the monument to the Terry Rangers facing the Confederate monument. The inset shows the entrance to Hermann Park, Houston.





Waterhouse Photo Co

### FEDERAL BUILDING, OKLAHOMA CITY, ONE OF THE NEWEST LARGE CITIES

The state capitol is another fine structure. Oil, cotton, livestock and meat-packing have helped to make Oklahoma City the commercial and financial metropolis of Oklahoma. On the day of its opening to settlement the city had a population of ten thousand under canvas. It has grown until by its fortieth birthday it had 245 miles of paved streets.

Louisville on the Ohio River, founded in 1778, and now an important commercial and manufacturing city. Immense quantities of leaf tobacco are sold, and much of it is manufactured. Covington and Lexington, are considerably smaller.

New Orleans on the Mississippi, the chief city of Louisiana, is another old city, picturesque, and interesting, as no new city can be. Founded by the French, it has not lost all the flavor of the early days. No short description can do it justice. Shreveport on the Red River is an important cotton, oil and lumber market. Little Rock, originally a French settlement on the Arkansas River, is the capital and largest city of Arkansas, with a large wholesale and retail trade. There are many educational institutions. Hot Springs, though small, is famous for its medicinal waters.

The state of Oklahoma was organized during the present century, and its cities must therefore be new. Oklahoma City, the capital, grew up almost in a night. It is in a fine agricultural region and is surrounded by oil wells. Tulsa was a Creek Indian village a few years ago, but the fine farms and the neighboring oil fields have made it a busy, prosperous city.

Texas is so immense that there is room

for many cities. Though San Antonio was the largest up to 1920, it has been passed by both Houston and Dallas. Houston has access to the Gulf of Mexico by the ship channel and has become an important port. It has many factories, and also has a large wholesale trade. Dallas is the largest inland cotton market, the largest producer of cotton oil, and has many other manufactures. It has an immense trade and is noted as an educational centre. San Antonio was long a Spanish and a Mexican city and still preserves some of the atmosphere. The famous Alamo is here, and the United States Army maintains three flying fields. Ft. Worth is a great oil centre, and is the largest meat-packing centre in the South. Its manufactures are second only to those of Dallas. El Paso, in the extreme west, lies on the Rio Grande just across from Juarez, Mexico. While it has some manufactures, it is best known for its equable climate. There are many other smaller cities in Texas, some of which are growing very rapidly. Wichita Falls has grown with amazing rapidity. Austin, the capital, is an attractive residence city. The state university is here. Galveston, on the Gulf, is the second port in the United States in value of exports.



## CITIES OF THE NORTH CENTRAL STATES

The two census groups which we have joined show wide differences in density of population, and in number and size of cities. Ohio, for example, had seven of over a hundred thousand in 1920, while several states had none. Cleveland, on Lake Erie, is the largest city in Ohio, with over a million people, fine public buildings, many factories producing a great variety of products, great educational institutions and attractive residence streets. It is an important port and builds many ships. Cincinnati, magnificently situated on the Ohio River, is next in size, and its manufacturing and commercial interests are large. Several bridges connect the city with Kentucky across the river. One of them is particularly fine. There is a city-owned university, and the interest in art and music is keen. Toledo, on the Maumee River, near the western end of Lake Erie, is another manufacturing and commercial city, while Columbus,

the capital, is in almost the exact centre of the state. It is on the Scioto River and manufactures iron, steel, and agricultural implements, and other things. Akron has the distinction of manufacturing more rubber than any other city in the world, and contains also immense cereal mills, and other factories. Dayton, on the Great Miami, has many industries, but is most noted, perhaps, for the production of the cash registers you can see in the shops. Youngstown is chiefly noted for its enormous steel mills. Canton is in a fine farming country, but also has factories. This city was the residence of President McKinley, who is buried here. The population of the state has increased more than a million within ten years.

In contrast to Ohio, Indiana has fewer cities. Indianapolis, the capital, on the White River, is the largest. It lies in a fertile plain, but its manufactures have increased rapidly. The residence dis-



Courtesy Industrial Bureau of Columbus

### TRANSCONTINENTAL AIR TRANSPORT PLANE OVER COLUMBUS, OHIO

Columbus, laid out in 1812, was named for Christopher Columbus. The city has a state-house of gray limestone in the Doric style, a Civic Centre with a central high school completed in 1925 and a prospective City Hall. Ohio State University has a campus and farm of over 1,100 acres and a stadium which seats 72,000.





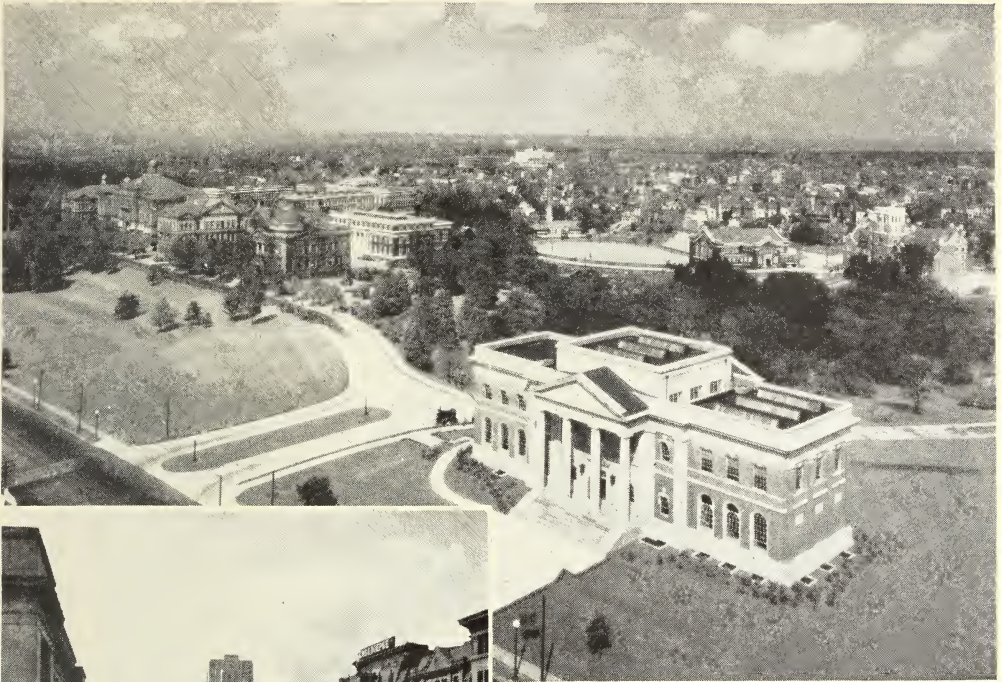
districts are beautiful. Ft. Wayne, on the Maumee, occupies the site of the old fort. Evansville, on the Ohio, is a thriving commercial and industrial city. Terre Haute, on a bluff as its name implies, is a busy city with fine buildings.

Chicago far overshadows all other cities of Illinois. In a century it has grown from a tiny village to a city of over three millions. Situated on the southwest shore of Lake Michigan it has become the metropolis of the West, and also one of the most important cities in the world. Chicago is first, or greatest, in so many things that to name them would make a catalogue. Grain, meat, iron and steel machinery, agricultural implements, textiles, leather and printing are some of the leading industries, but there are many others. In recent years the people have given much attention to improving the appearance of the city, and have succeeded marvelously. The city has some celebrated institutions of learning and the Field Museum ranks high. No other city in Illinois has as many as a hundred thousand people. Springfield is the capital.

TERMINAL STATION AND HOTEL CLEVELAND AT CLEVELAND, OHIO

Cleveland, port city on Lake Erie, has wide streets and a chain of parks; its public buildings are grouped according to plan. Many of the business buildings exhibit a high degree of architectural merit. The city was founded by Moses Cleveland, a relative of President Cleveland, and President Garfield is buried here. Two breakwaters form an outer harbor.





#### VIEWS OF CINCINNATI, OHIO

The University of Cincinnati, with Taft Law School and part of the campus in the foreground, is shown above, and at the left, Central Parkway, west from Syracuse Street.



Photographs courtesy Chambers of Commerce of Cincinnati and Battle Creek

#### MAIN BUILDINGS OF SANITARIUM, BATTLE CREEK

The founder of this institution was a pioneer in hygienic and dietetic treatment; and the city's leading manufactures are articles appropriate to a health resort—cereals and the cartons in which they are shipped, electric light bath-cabinets, therapeutic lamps, massage tables, vibratory chairs and the like. Battle Creek College was founded in 1923.





Courtesy Indianapolis Chamber of Commerce

### INDIANA SOLDIERS' AND SAILORS' MONUMENT IN INDIANAPOLIS

In the exact centre of the original tract of four sections given Indiana in 1816 for its capital stands the above monument, surmounted by a thirty-eight-foot statue of Victory, to which the visitor may be carried by an elevator. Indianapolis had the first union railway station in the world and its present Union Depot is one of the most efficient.





Courtesy Detroit Convention and Tourists Bureau

## THE DETROIT SKYLINE, THE NEW PENOBSCOT TOWERING OVER ALL



EXTERIOR OF FISHER BUILDING



INTERIOR OF FISHER BUILDING



## EDGE OF GRAND CIRCUS PARK SEEN, WITH HIGH BUILDINGS BEYOND

Detroit, founded in 1701 by Antoine de la Mothe Cadillac, has latterly grown phenomenally, thanks largely to the motor industries which centre here. It has a number of modern office buildings, the tallest of which is the new Penobscot, forty-seven stories high, with a beacon ninety feet above the roof. Other handsome buildings include the Institute of Arts.





Michigan has two cities which have grown with amazing rapidity due to the automobile industry. Detroit is an old French settlement on the Detroit River, between Lakes Erie and Huron. While it has many manufactures and an enormous commerce, both are far surpassed in extent by the automobile industry. Many of the best known cars are made here. Flint, before the development of the automobile, was only a town, but the population has multiplied many times. Highland Park, adjacent to Detroit, is another growing city dependent upon the motor industry. Grand Rapids, on the Grand River, is perhaps the leading city in the world in the manufacture of furniture of every grade. The other cities are smaller.

Wisconsin is another



Courtesy Milwaukee Association of Commerce

**TRUST COMPANY BUILDING AND LINCOLN MEMORIAL BRIDGE, MILWAUKEE**

The building shown above occupies the site of the first trading-post. Land has been reclaimed from Lake Michigan and a breakwater built to insure a well protected harbor.





Courtesy Minneapolis Civic and Commerce Association; inset, courtesy Saint Paul Association

#### THE DOWNTOWN SECTION OF MINNEAPOLIS, MINNESOTA

Minneapolis, on the Mississippi, has twelve miles of frontage on the river, here twelve hundred feet in width. It manufactures quantities of butter and flour, among other good things. The Round Tower at Fort Snelling was established in 1805 as the first military post in the north-west on land purchased from the Sioux by Zebulon M. Pike.

state with a single large city, Milwaukee, on Lake Michigan, with great iron and steel mills. It has great flour mills, and before the Eighteenth Amendment was known for the quality and quantity of beer produced. Madison, the capital, is a pleasant city, the seat also of the state university, and has excellent libraries.

The twin-cities of Minneapolis and Saint Paul, both on the Mississippi, are the largest cities of Minnesota. Minneapolis is the largest flour-milling city of

the world, and also exports much lumber. It is also first in linseed oil. The trade is large, particularly in grain. Saint Paul, the capital, is a few miles down the river, and the state capitol is one of the most successful public buildings in the Union. Duluth, at the extreme western end of Lake Superior, owes its importance to grain, lumber and the iron ore, some of which is made into iron here, but more goes to the blast furnaces elsewhere.

Iowa is primarily an agricultural state,



Courtesy Saint Paul Association

#### SKYLINE OF DOWNTOWN BUSINESS DISTRICT, SAINT PAUL, MINNESOTA

Saint Paul was named for a log church built by the French in 1841. In addition to possessing varied manufactures, it is the natural distributing centre for the north and west.





Photograph by L. P. Gallagher, courtesy Duluth Chamber of Commerce

### SKYLINE OF DULUTH, MINNESOTA, AND HARBOR ON LAKE SUPERIOR

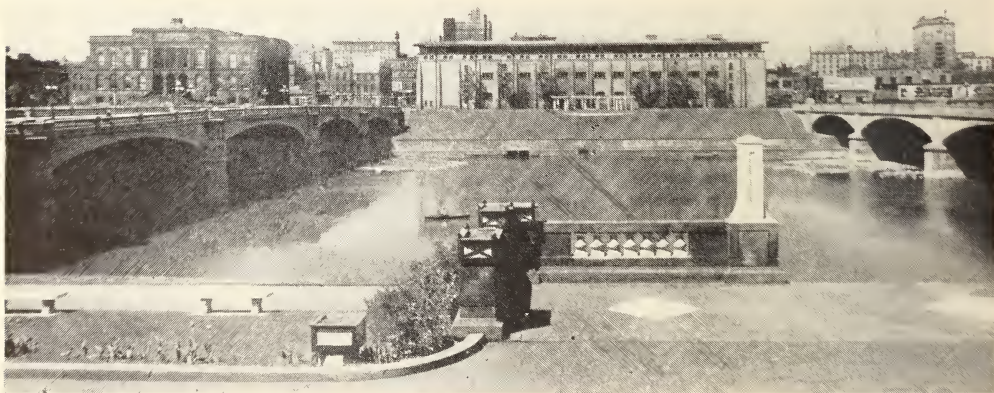
The city rises from heights above the lake and has a twenty-nine-mile scenic boulevard and twenty-five hundred acres of parks. The harbor is one of the most active in the country.



Photocraft Service

### IOWA STATE CAPITOL, IN ITS SPACIOUS PARK AT DES MOINES

This building, completed in 1882, stands in the centre of an eighty-acre park, and has for neighbors the State Historical, Memorial and Art Building and the State Library.

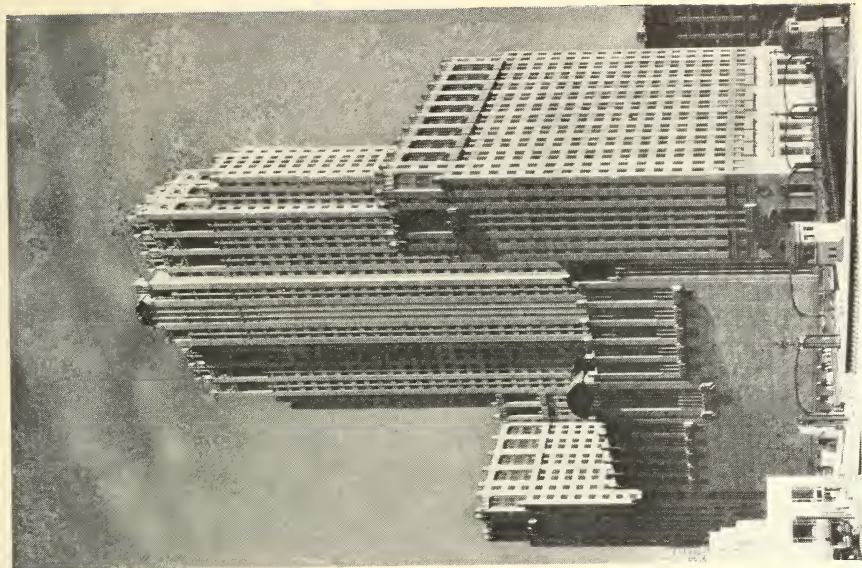


Photocraft Service

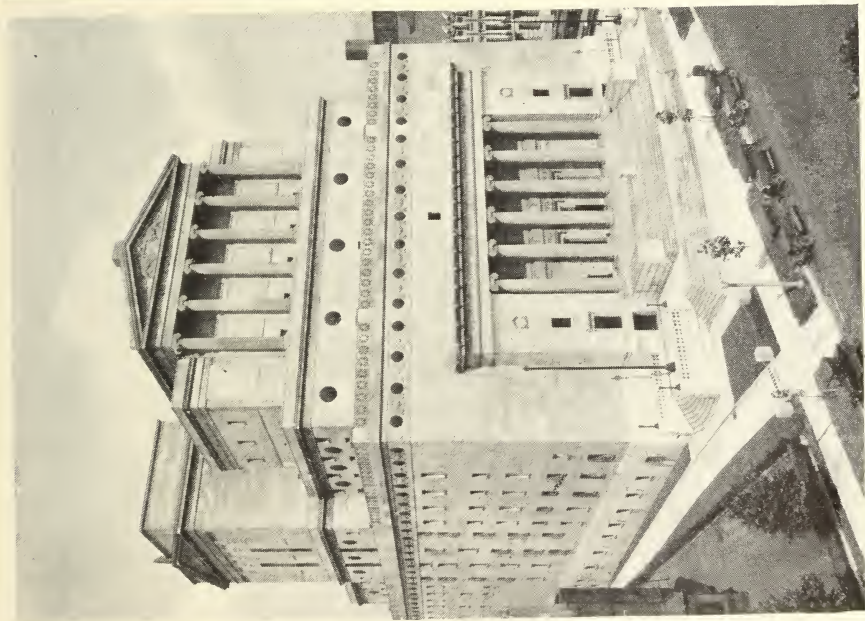
### CIVIC CENTRE IN DES MOINES, IOWA'S CAPITAL AND LARGEST CITY

This view includes the city hall and municipal courthouse and a coliseum. The state fair grounds, farther out, draw four hundred thousand people. The name is pronounced "de-moin."





Architectural Photographing Co.



Courtesy St. Louis News Service



Photograph by Anderson

### THREE OUTSTANDING ILLUSTRATIONS OF MID-WESTERN ARCHITECTURE

The structure to the left is the Southwestern Bell Telephone Building, one of the excellent business structures in Kansas City, Missouri. The middle photograph is the impressive new Masonic Temple at St. Louis; and the skyscraper at the right is the magnificent Chicago Opera House.

The skyscraper has been declared to be the most American thing in the world. The cliffs of stone and steel owe their existence to the possibilities of metal framework, which were discovered in Chicago in 1882 when the Montauk block was built, though it would seem low now.



## THE CITIES OF THE UNITED STATES

and naturally has fewer cities than a state dependent upon manufactures. Des Moines, on the Des Moines River, is the capital, and also the largest city. Coal is near by and the manufactures are considerable. Sioux City, on the Missouri, is next in size. Missouri has two important cities, St. Louis and Kansas City.

unusual. Adjoining is Kansas City, Kansas, of which we speak later.

North Dakota is almost entirely agricultural and in 1920 had no city even of 25,000. Fargo, the largest, is a great market for the hard spring wheat of which the state produces so much, and manufactures are developing. The state agricul-



Photograph by St. Louis News Service

### MUNICIPAL BRIDGE OVER THE MISSISSIPPI AT ST. LOUIS, MISSOURI

St. Louis, on the west bank of the Mississippi, has fully nineteen miles of waterfront, along which are warehouses, wharves and lumber yards. The bridges of several main railway lines indicate the importance of the traffic. The city has fine libraries, a symphony orchestra, City

Art Museum, municipal theatre and an increasing number of skyscrapers.

St. Louis, on the Mississippi, is an old French settlement, and has been important since colonial days. The city rises above the river in three terraces. Like other large cities it manufactures a variety of goods and is also a great grain and live-stock market. The river is crossed here by several bridges. Kansas City, on the Missouri, is the second city and an industrial, commercial and railway centre. The system of parks and boulevards is

tural college is here. Bismarck, the capital, is on the Missouri River, which is here crossed by fine bridges. South Dakota, which came into the Union at the same time as its sister state, likewise has no large city. Sioux Falls on the Big Sioux River has large power resources and many flour-mills. Aberdeen owes its growth to the agricultural and stock-raising interests. Pierre, the capital, on the Missouri, is small but ships many cattle.



## THE CITIES OF THE UNITED STATES

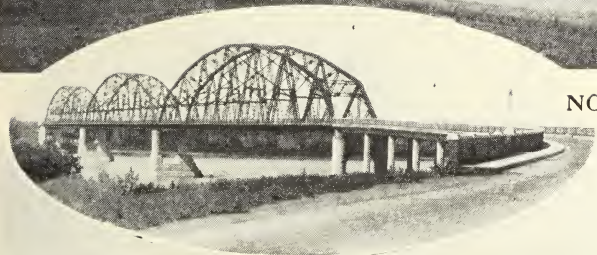
Nebraska has only one large city, Omaha, on the west bank of the Missouri River. For seventy-five years and more it has been one of the chief gateways to the West, and its trade even when much

The state university, and several other educational institutions are here. The capitol building strikes a new note in American architecture. The largest city in Kansas is Kansas City, which adjoins



© Finney's

NORTH DAKOTA STATE CAPITOL  
AND MEMORIAL BUILDING



© Miller

STATE HOUSE AT PIERRE, SOUTH DAKOTA, "THE SUNSHINE STATE"

Both Bismarck and Pierre, on the Mississippi River, the seats of government for North and South Dakota respectively, are supply centres for wide agricultural regions, though neither has yet grown into a large city. At Bismarck is a log house which formerly stood on President Roosevelt's ranch. The inset shows the Memorial Bridge over the Missouri at Bismarck.

smaller was considerable. It is really the eastern terminus of the Union Pacific Railway, the first of the transcontinental railways, and has become a great industrial city. The trade in grain, livestock and meat products is large. Lincoln, the capital, is an important railway centre.

the city of the same name in Missouri. This is an important livestock and packing centre, but has been somewhat overshadowed by its neighbor. Wichita, in a fine farming country, sells grain, livestock, flour and meat products. Its flour mills are numerous and large, and there



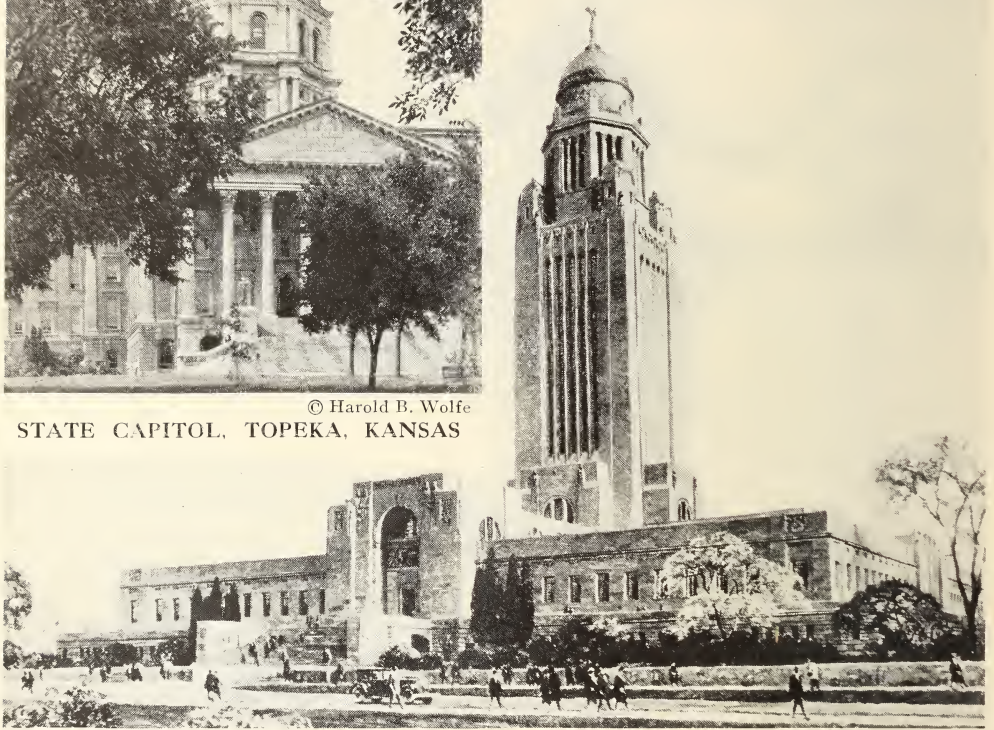
## THE CITIES OF THE UNITED STATES



© Harold B. Wolfe

STATE CAPITOL, TOPEKA, KANSAS

The milling industry is important, and many of the state institutions are located here. The name is the Omaha word for the "Indian potato." The first settler came in 1852, and an anti-slavery colony was founded here two years later. It was the scene of many riots during the bitter



Courtesy Lincoln Chamber of Commerce

NEBRASKA STATE CAPITOL AT LINCOLN BUILT BY BERTRAM G. GOODHUE

The central tower of the Capitol, four hundred feet high, is surmounted by the figure of a sower. Lincoln also has a Nebraska Memorial Stadium in the heart of the city which seats forty thousand and the State Fair Grounds which accommodate three hundred thousand.

are many other factories. Topeka, the capital, is divided by the Kansas River. "struggle for Kansas," just before the beginning of the great Civil War.



Courtesy Omaha Chamber of Commerce

A SECTION OF DOWNTOWN OMAHA, SHOWING ITS MODERN BUILDINGS

Omaha, Nebraska, was originally built on bluffs above the Missouri River and its business section still occupies this location, though the city has spread over the hills beyond.



## THE CITIES OF THE WESTERN STATES

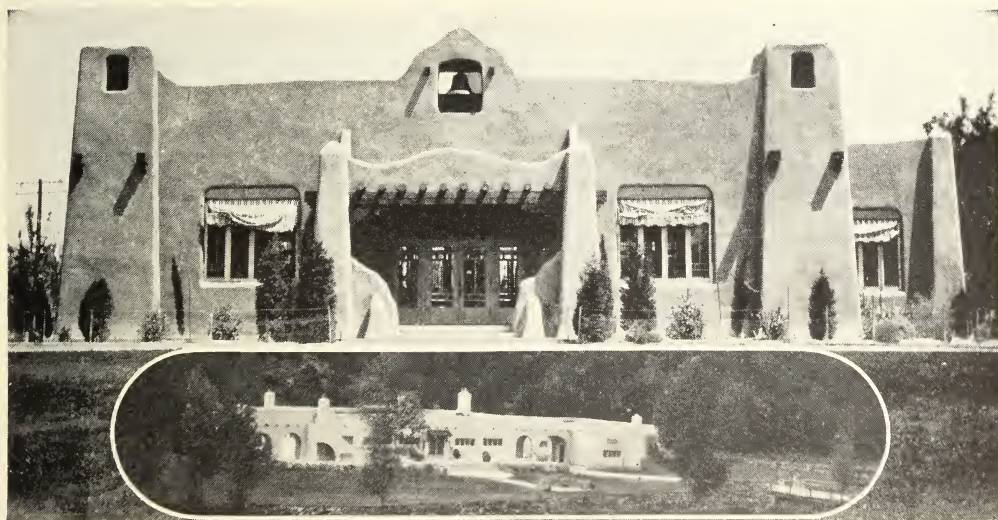
The states of the mountain group are as yet sparsely populated, and therefore many large cities cannot be found in them. In fact, the only cities of over a hundred thousand in the group are Denver and Salt Lake City. The states of the Pacific group, on the other hand, have a denser population, and naturally have larger cities and many more of them. A part of their importance is also due to their large foreign trade.

Montana has only one community over 25,000, Butte, one of the greatest mining towns in the world. Gold, silver, and especially copper, are mined here. The smelting works at Anaconda are immense. Great Falls, on the Missouri, is also a copper town, and the falls generate electricity, some of which is sold to towns at a distance. Wyoming has no important city, but Cheyenne, the capital, is better known than many cities ten times its size. It is located on the plains and has a large livestock industry. Fort Russell, a United States army post, is near by. Casper is the next town in size.

Colorado has one large city, and several smaller ones. Denver, the capital, on the South Platte River, commands a superb

view of the Rockies a few miles away. It is a railway, a mining, a commercial and an industrial centre, with substantial buildings and attractive parks. Pueblo, next in size, is on the Arkansas River. It was first only a mining town but has become important commercially and industrially. Colorado Springs, near the base of Pike's Peak, is a famous health resort. Many of those who visit the town become permanent residents. New Mexico is a state without cities. Albuquerque is the only considerable town, and is a trading centre. Though Santa Fe, the capital, is considered the second oldest town in the United States it has not grown with the years. It is none the less quaint and interesting, since many reminders of Spanish occupation still remain, and the population shows many types.

Arizona is another state without large cities. Phoenix, the capital, is in a prosperous irrigated agricultural district. Fine cotton is grown near by. Several of the smaller towns have grown out of mining-camps. The population of Nevada is very small, and the only considerable town is Reno on the Truckee River. The state university is here. Carson City, the



Courtesy Albuquerque Chamber of Commerce

### PUBLIC LIBRARY AND COUNTRY HOUSE, ALBUQUERQUE, NEW MEXICO

This shows the architecture—an adaptation of the Pueblo adobe—favored in a region exceptionally dry and treeless. The inset shows a country house in the neighborhood.





Courtesy "Municipal Facts"

THE LILY POND, CITY PARK, DENVER, COLORADO

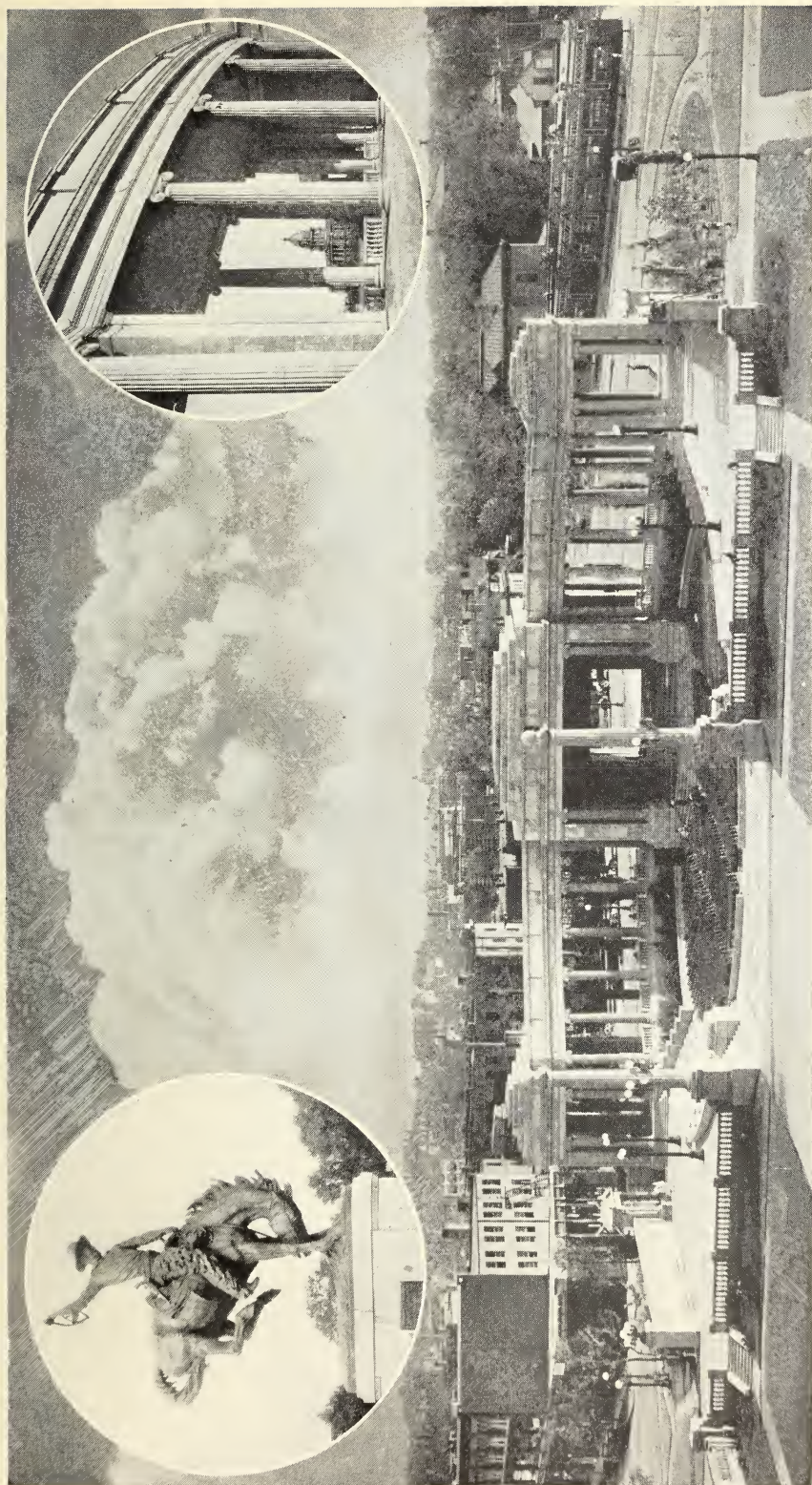


Courtesy The Colorado Association

CHILDREN'S FOUNTAINS IN CITY AND WASHINGTON PARKS, DENVER

Of the two fountains of childhood, the one in the inset illustrates Eugene Field's charming poem of Wynken, Blynken and Nod a-sail in their wooden shoe. The poet's first real recognition came when he was a Denver newspaper writer. Denver has forty parks within city limits, seventeen or more supervised playgrounds and a chain of thirty-eight mountain parks.





Mile High Photo, courtesy The Colorado Association

# **OPEN-AIR THEATRE, BRONCHO BUSTER AND STATE CAPITOL SEEN THROUGH COLONNADE**

Photograph by L. C. McClure

Denver is well planned and has few wooden structures of any sort. The state Capitol, with its glittering dome overlaid with gold from the Colorado mines, stands on a terraced hill in the centre of the city. Just west of the Capitol grounds is the civic centre, which includes the Greek

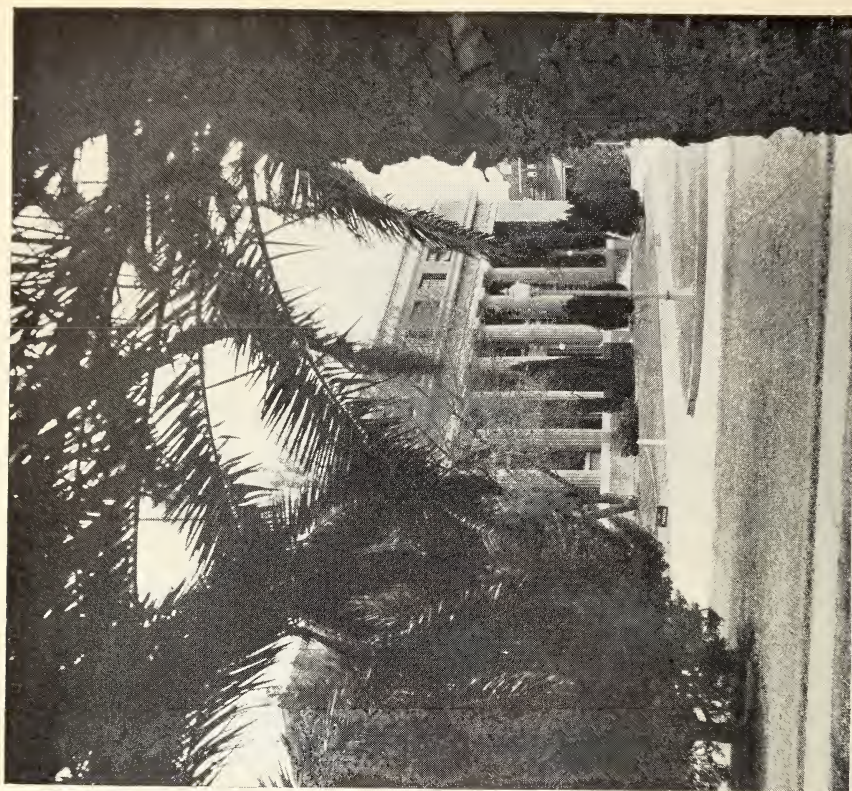
theatre, public library, city and county building and United States mint. There is also a municipal auditorium. Overland Park is a municipal camp for motorists and Grand Lake, farther out, has a regatta every August. A tourist bureau lists sixty excursions.





Courtesy The Atchison, Topeka & Santa Fe Railway Co.

**GROUPS OF THE STATE CAPITOL, AT PHOENIX,** favored by tourists because of its prevailing sunshine, lies in the Salt River Valley, Arizona, which is irrigated from the Roosevelt Dam and other projects. Tucson is the seat of the University of Arizona, with its Steward Observatory, a State Museum containing fine archæo-



Courtesy Tucson Chamber of Commerce

**AND GIRLS' DORMITORY, UNIVERSITY OF ARIZONA**

logical collections, the Southwest Experiment Station of the United States Bureau of Mines, a Carnegie library and a Carnegie Institution laboratory devoted to the botany of the desert. There is also a Roman Catholic Cathedral and the San Xavier Mission for Indians.

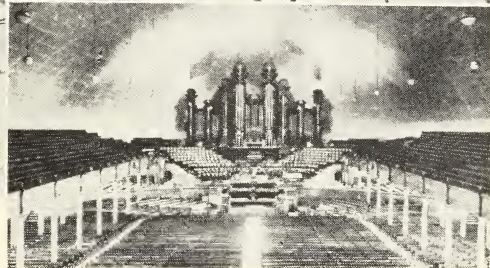




Courtesy Union Pacific System

### TEMPLE SQUARE, SALT LAKE CITY

Fully half of Salt Lake's churches are Mormon, for the city is the headquarters of the Church of Jesus Christ of Latter-Day Saints. The site was chosen and the city was planned by Brigham Young. No gentile may enter the gray granite Temple; but in the Tabernacle, the low building with the turtle-shaped roof, daily organ recitals are offered to the public.



### THE MORMON TABERNACLE

capital, is small. Several towns in the state which grew up around the mines have decreased in population as the productivity of a particular mine declined.

Salt Lake City, on the Great Salt Lake, is the capital and by far the largest city in Utah. Founded by Mormon colonists in 1847, it has remained the seat of Mormon authority and influence. It is an attractive city and has also become a great mining and smelting centre. The state is very rich in minerals of various kinds. Ogden, situated on a plateau, and surrounded by mountains, is primarily a railroad city. The Union Pacific and the Central Pacific met near here in 1869.

Idaho has no large city. Boise, the capital, is the largest. It was founded as a military post, and has grown because of farms, ranches and mines in the region. The Arrowrock Dam on the Boise River

irrigates over 350,000 acres, nearly all in Idaho. Pocatello is the next town in size. It is a distributing centre and has developed considerable manufactures.

When we come to the three states on the Pacific, we find many cities. In Washington, Seattle, on an arm of Puget Sound, has a magnificent harbor, and is the banking, commercial and industrial centre of a fertile region. There are many parks and boulevards. The campus of the University of Washington is exceptionally beautiful. Spokane and Tacoma are the next cities in size. Spokane, on the Spokane River, is the commercial and industrial city of eastern Washington and adjacent parts of Oregon and Idaho. Spokane Falls in the centre of the city furnish cheap electricity, some of which is transmitted to other communities. Much pride is exhibited in the park





Photograph by Brubaker Aerial Surveys



Courtesy Seattle Chamber of Commerce

## SEATTLE FROM WATERFRONT, WITH TWO OF ITS MAIN THOROUGHFARES

The view at the left is that down Second Avenue, that at the right, looking up Pike Street from Third Avenue. Seattle is laid out on a series of hills above its exceptional harbor, on Elliott Bay, an arm of Puget Sound and its fresh-water lake, Washington. To the south, snow-capped Mount Rainier (Tacoma) may be seen rising just west of the main Cascade Range.





**CITY OF TACOMA LOOKING TOWARD "THE MOUNTAIN THAT WAS GOD"**

Pine-girt Tacoma on Commencement Bay, one of the many arms of Puget Sound, has a fine little natural harbor and looks up at snow-crowned Mount Rainier (Tacoma), at the foot of which the city has hydro-electric plants. There is an outdoor stadium which seats forty thousand, a State Historical Building and Ferry Museum which contain Indian relics.



Courtesy Chicago, Milwaukee, St. Paul and Pacific R.R.

**CIVIC CENTRE AT SPOKANE, METROPOLIS OF THE "INLAND EMPIRE"**

Spokane, lying in eastern Washington between the Cascade Range and the Rockies, is surrounded by pine-forested mountain slopes which shut off winter winds and coastal fogs. Through the heart of the city rushes the Spokane River, which supplies power for generating electricity.

Spokane has good hotels and more than two thousand acres of parks.





© Cross & Dimmitt

### VIEW FROM CROWN POINT, COLUMBIA RIVER HIGHWAY, LOOKING EAST

This scenic highway follows the river for 336 miles, sometimes close to its lower banks, again along the rocky wall above the stream, or through tunnels cut through mountain spurs.

system. Tacoma, on an arm of Puget Sound, has a fine harbor and is an important port. The city is built upon terraces rising from the water front, and has a splendid view of Mt. Rainier, which the residents declare should be called Mt. Tacoma. The city is in the heart of the Douglas fir belt. All the other cities are considerably smaller.



© Cross & Dimmitt

### THE COLUMBIA RIVER LOOKING WEST FROM CROWN POINT, OREGON

The stream, rising in the snow-fields of the Canadian Rockies and making a "Big Bend" through Washington, discharges into a deep-water harbor, the first north of San Francisco.

portant port. The city is built upon terraces rising from the water front, and has a splendid view of Mt. Rainier, which the residents declare should be called Mt. Tacoma. The city is in the heart of the Douglas fir belt. All the other cities are considerably smaller.

Oregon has only one large city, Portland.

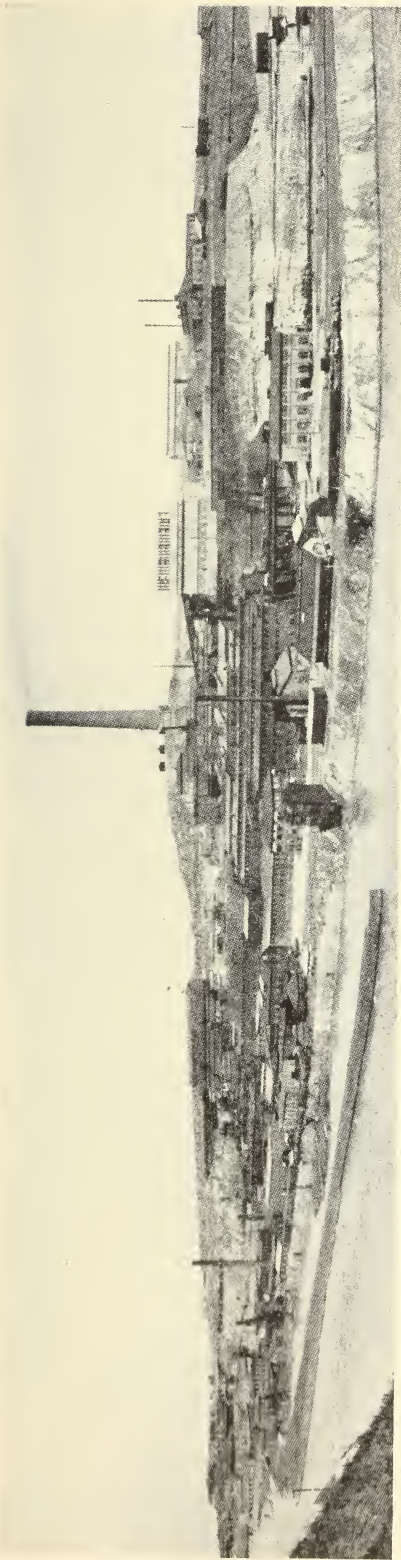


Courtesy Portland Chamber of Commerce

### BEACH AT SEASIDE, PART OF OREGON'S LONG, SANDY COASTLINE

The Oregon coast is comparatively unbroken, though the long, sandy beaches are varied by occasional small bays formed where lateral spurs of the Coast Range reach the sea.

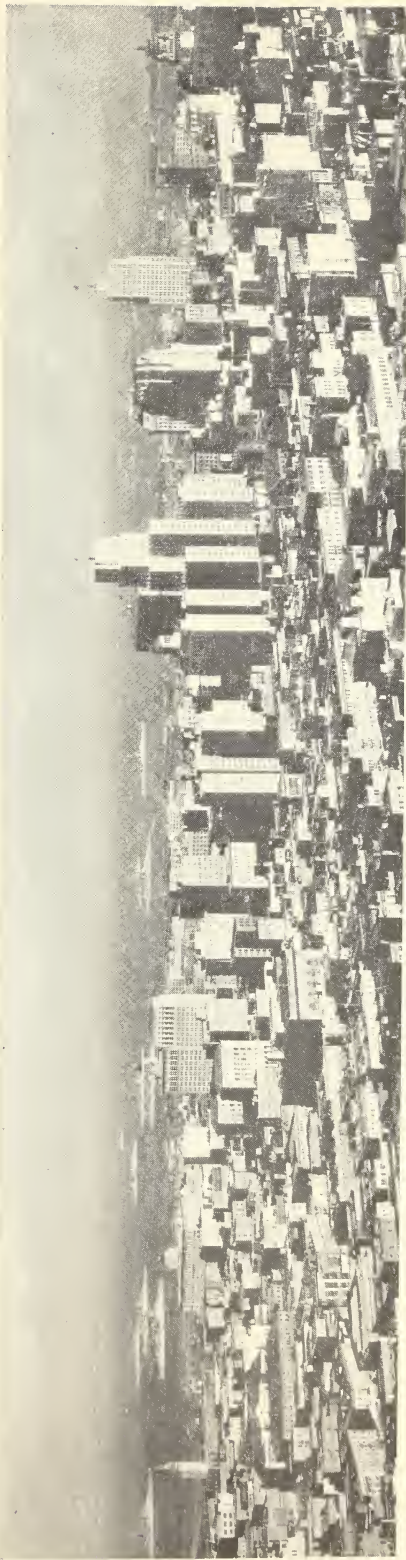




### REDUCTION DEPARTMENT, ANACONDA COPPER MINING CO., GREAT FALLS, MONTANA

Here is the world's largest chimney; it could enclose Washington Monument, for it is 585 feet high and 75 feet wide at the base, where the walls

are six feet thick. The Anaconda Copper Mining Company produces annually more than a billion pounds of copper.



### SKYLINE OF SAN FRANCISCO'S FINANCIAL DISTRICT, WITH FLEET ANCHORED IN BAY

Courtesy San Francisco Chamber of Commerce

San Francisco stands on seven hills overlooking one of the largest landlocked harbors in the world, which is entered through the Golden Gate.

The city is the financial centre of the Pacific Coast and, with the exception of New York, the most cosmopolitan city in the Union.





© Spence Airplane Photos

## WILMINGTON, CALIFORNIA, AND (BELOW) DOWNTOWN LOS ANGELES

The tall building in the foreground is the Los Angeles City Hall as it appears from Main Street. Wilmington is one of the municipalities that Los Angeles has annexed to secure a port. The view shown above was taken looking toward the outer harbor, which is connected with Los Angeles by a "shoestring strip" of land twenty miles long.





Photograph by Gusty Schenk, courtesy Los Angeles Chamber of Commerce

# VIEW OF HOLLYWOOD, CHIEF HOME OF THE MOVING PICTURE INDUSTRY

Hollywood is one of the most attractive of the annexed towns that have helped to constitute Los Angeles. Moving picture stars and others have built their residences, usually in the Spanish style, with red tile roofs. The largest buildings in the above photograph are the moving picture studios, and the foothills are those of the San Gabriel Mountains.

land, beautifully located on both sides of the Willamette River, a few miles above its confluence with the Columbia. It has an excellent harbor and is reached by many lines of both ocean-going and coast-wise steamers. There are many industries but lumber is the most important. The famous Columbia River Highway passes through the city, and there are others hardly less attractive. The park system is unusually complete, and the mountain views are attractive and impressive.

California has four considerable cities and many smaller ones. At the last census Los Angeles passed San Francisco in size. With the exception of St. Louis it is the largest city west of the Mississippi. The city is an old Spanish foundation, though its most rapid growth has been within the present century. Many

of the residents were born in states farther east and have come to live here because of the climate. It is a delightful winter resort, a large fruit market, a busy port, and an important manufacturing city, with petroleum refining and the preparation of meat and other food products as its leading industries. The city is most famous, however, as the headquarters of the moving picture industry in the United States and thousands of persons are employed. The University of Southern California and the southern branch of the University of California are here, besides several colleges.

San Francisco, on a peninsula between San Francisco Bay and the Pacific, takes its name from an old Spanish mission founded about 1776, but did not begin to grow until the discovery of gold in 1848.





Photograph by Johnson & Son

# **ARROWROCK DAM, THE HIGHEST DAM IN THE WORLD, AT BOISE, IDAHO**

The Arrowrock Dam, on the Boise River in southwestern Idaho, supplies a vast area with water for irrigation. It is the highest dam in the world, 350 feet, and is wide enough to have a driveway across its crest. Its capacity is 340,000,000 tons of water. The structure lies twenty-two miles east of Boise, the capital and largest city of Idaho.



Courtesy Los Angeles Chamber of Commerce

# **THE PALMDALE DAM WHICH HELPS TO IRRIGATE ANTELOPE VALLEY**

Palmdale, Los Angeles County, is irrigated by the above dam, which is but one of a number of irrigation projects that make Antelope Valley fertile. Under irrigation semiarid Los Angeles County produces quantities of oranges, lemons, apricots, peaches, figs, avocados, vegetables, almonds and walnuts, and the gardens of the city are particularly attractive.



## THE CITIES OF THE UNITED STATES

It has a superb harbor, and dozens of steamship lines touch here, making it the greatest Pacific port. There are manufactures of all sorts. On the hills rising from the bay are many handsome residences, and the public buildings are dignified and imposing. There are many institutions of higher learning. Few cities anywhere have had a more romantic history, and some of the flavor remains.

Just across the bay on the mainland is Oakland, so called from the live oaks which formerly covered the site. It is connected by ferries with San Francisco, and several railways have their terminals here. Though connected in many ways with its larger neighbor, it has an independent life of its own, and is important both commercially and industrially. Berkeley, to the north of Oakland, is the seat of the University of California, one of the largest institutions in the world. San Diego, on the Pacific, just north of the Mexican border is also development from an old Spanish mission. The harbor is second only to that of San Francisco, and the commerce is large. There are many factories. It is a beautiful city with a delightful climate, and has become famous as a winter resort. Sacra-



**CAMPANILE ON CAMPUS, BERKELEY**

From this tower one overlooks not alone the University of California but the Golden Gate.



Photograph by Gabriel Moulin

**PRESIDENT HOOVER'S HOUSE AT PALO ALTO, CALIFORNIA**

Palo Alto is a city on the San Francisco peninsula, laid out in 1891 by Senator Stanford as the seat of the present Stanford University. President Hoover is a graduate of the University.





© W. E. Averrett

# **SAN DIEGO SEEN ACROSS THE WATERS OF THE BAY FROM CORONADO**

San Diego lies along a crescent-shaped bay separated from the ocean by a narrow sandspit. The Mission of San Diego de Alcala was founded in 1769, the first of California's Franciscan missions. With its landlocked natural harbor, the city is the site of the largest naval operating base on the Pacific Coast. The residence section is built around Balboa Park.

mento, the capital, on the Sacramento River, is an attractive city. Fort Sutter Park contains a reproduction of Sutter's fort, which was established by Captain John A. Sutter, about 1840 and soon became the greatest trading post in the West. Gold was discovered on Captain Sutter's land, January 24, 1848, and soon thousands were rushing to California. Captain Sutter did not profit by the discovery and died a poor man.

All the largest cities of the country have now been named, but the list will not remain correct for a long period. There seems to be a world-wide movement toward the city. In many parts of the United States the rural population is decreasing while the cities continue to grow. Within a few years many of the towns and smaller cities which have been omitted will be as large as many of those which have been mentioned.





Courtesy San Diego Chamber of Commerce

#### IN SAN DIEGO'S FOURTEEN-HUNDRED-ACRE BALBOA PARK



Courtesy Oakland Chamber of Commerce

#### SKYLINE OF OAKLAND, CALIFORNIA, SEEN ACROSS LAKE MERRITT

Oakland is the home of numbers of San Francisco business men, for the Bay is crossed by large, swift ferry-boats. The better residential part of Oakland is laid out on the hills with streets that follow the contours of the land, and one may look upward to the Piedmont Hills or off across the beautiful bay to Mt. Tamalpais on the Golden Gate,





© Hileman

#### GOING-TO-THE-SUN MOUNTAIN, IN GLACIER NATIONAL PARK, MONTANA

This peak will soon be reached by a trans-mountain road from the eastern boundary. The wild region of this northernmost park of the United States was once the hunting-ground of the Blackfoot Indians. Ages before that, the region was covered by a prehistoric sea and its sediments have left horizontal streaks of colored rock in the mountain masses.



# BEAUTY, WONDER, WISE HUSBANDRY

## *National Parks, and Monuments and Forests*

The United States has set aside a number of areas, chiefly in the West, as National Parks and National Monuments, to be preserved for the education and enjoyment of the people. These areas are remarkable because of their extraordinary scenic beauty or grandeur, or because of their geysers or volcanoes, glaciers or snow-clad peaks, their multi-colored canyons, caves and prehistoric remains. The parks are also sanctuaries for wild life and some of them contain buffalo, mountain goats, elk, bears and other creatures that might otherwise become extinct. These parks, twenty-one in number, total somewhat over twelve thousand square miles in area. The monuments, sixty-one in number, total over four thousand square miles. The 151 National Forests, on the other hand, originally called Forest Reserves, total nearly 250,000 square miles—roughly, a third of the forested area of the United States—and are administered by the Department of Agriculture for the highly valuable timber crop, and also as a protection to vitally important watersheds. Both parks and forests welcome, every year, thousands of vacation-seekers.

**B**EFORE the adoption of the Articles of Confederation several of the states claimed unoccupied lands west of the Alleghanies. These they ceded to the national government; and as different additions have been made to the United States, the ownership of all land (except in Texas) not already in private ownership has been vested in the general government.

Most of these lands have now passed into private ownership. However, the government still owns millions of acres scattered through many states of the West and some of it is open to settlement (though all the best agricultural land is gone), but much of it has been set aside for the use of all the people. These government reservations may be conveniently classed as National Parks, National Monuments and National Forests. Let us see what these mean.

A National Park is created by Congress for the sake of developing and perpetuating it for the public enjoyment, and a National Monument is proclaimed by the President to conserve some restricted area of unusual scientific or historic interest. A National Forest, on the other hand, is administered by the Federal Government for the service of the public, in part to conserve the timber crop and in part to protect the watersheds and so prevent floods and resultant drought and aridity. There are 151 national forests totaling nearly 160,000,000 acres or 250,000 square

miles. As shown by the summary at the end of the chapter, the existing twenty-one parks total over twelve thousand square miles, and the thirty-three monuments administered by the Park Service, nearly four thousand, in addition to which the twenty-eight monuments administered, half of them by the Department of Agriculture and half by the War Department, amount to some 590 square miles. Parks, monuments and forests welcome hundreds of thousands of vacationists every summer.

A map of the national forests would show vast areas reaching from Canada to Mexico along the rocky backbone of the continent and from the desert to the mountain meadows. Most of the national parks and nearly all of the national monuments would show up as mere dots here and there, although Yellowstone Park has an area of 3,346 square miles, chiefly in Wyoming, though spreading into Montana and Idaho; and Glacier Park on the Canadian border is nearly half as large. Several others are of considerable size. Exact figures are given at the end of the chapter.

The first of the national parks (barring the mile and a half of Arkansas Hot Springs) was that of Yellowstone Park, which was created in 1872. All the national parks are administered by the Department of the Interior under a National Parks Service created in 1916.



*The Nation's Pleasure-grounds*

The national parks may be roughly classified as of four kinds—(1) those remarkable chiefly for their extraordinary scenic beauties, as stupendous waterfalls, gigantic trees of prehistoric age, the highest mountain peak in North America and the marine vistas of historic Acadie; (2) those displaying such evidences of erosion as remarkable limestone caves and stupendous canyons wonderfully carved and colored; (3) those illustrating glacial action; and (4) those containing volcanic phenomena, geysers and hot springs. The names, location and area of these parks are given in the summary, together with the dates of their creation. Instead of describing them in their chronological order, it seems more interesting to group them according to characteristics. The nation has provided roads, trails, supervised camp grounds and hotels.

Yosemite Valley, the best known feature of Yosemite National Park, cut by the Merced River and by glacial action, is a canyon seven miles long with walls in places three thousand feet in height down which pour the world's highest waterfalls. The Yosemite Falls is shown on page 394. Vernal Falls are unsurpassed for sheer loveliness. The Merced River here descends for 320 feet in a sheet of jade-green water to foam white among the boulders at its foot. The trail from the valley rim leads one down among the spray-wet cliffs through a veritable rainbow which, every afternoon the sun shines, seems to follow one from step to watery step. Bridal Veil Falls, aptly named, drops 620 feet and the slender Ribbon Falls makes a straight drop of 1,612 feet. Nevada Falls drops 594 feet behind the evergreens. Equally spectacular are the summits that rise from the valley floor. Cathedral Rocks, El Capitan and Sentinel Dome are exceeded by Half Dome, which towers a sheer 4,892 feet, and Clouds Rest, 5,964 feet.

*A Land Beloved of John Muir*

But Yosemite Valley occupies only eight square miles out of a total of over

eleven hundred which constitute the park. Above the valley's rim lies a region less well known save to groups like the Sierra Club and to individuals like John Muir, its first president, because well marked trails, canvas lodges and a motor road have only recently made it easily accessible. Lying on the western slope of the Sierra Nevada Mountains, Yosemite Park reaches Mount Lyell, the crest of the range, and the waters which feed the falls take their rise in the eternal snows. Glacier Point, on the valley rim, gives one a panorama of domes and pinnacles unsurpassed for its loveliness as the fingers of sunrise touch each in turn with gold.

The little known Waterwheel Falls of the Tuolumne River leap "high in the air in wheel-like whirls." The explanation of these falls is that the river, rushing down its canyon, encounters shelves of rock projecting from its bottom and throws enormous arcs of solid water upward, in some cases in a fifty-foot arc. One can but mention the government ranger-naturalist talks, the half-tame deer and brown bears, the carpets of wild flowers, the snow plant that pushes up like giant red asparagus, and the nightly bonfires that shower sparks to the moon. Yosemite Valley was discovered in 1851 by the Mariposa Battalion while pursuing Indians but was for long unknown save to miners and surveyors, soldiers and sheepherders.

*Great Sequoias Saved from the Ax*

Although Yosemite Park includes the second largest grove of "big trees"—the Mariposa Grove—and General Grant Park to the southward exists to preserve one tree that measures thirty-seven feet in diameter at its base, it is Sequoia Park which is most noted for conserving these oldest and biggest living things. The Sequoia gigantea, big cousin of the coast redwood or Sequoia sempervirens, is for the most part set apart in the Giant Forest of Sequoia Park. Before 1916 these trees were the property of individuals, but were purchased by Congress, aided by the National Geographic Society, and so saved from the possibility of falling before the





Photograph by James V. Lloyd

#### YOSEMITE'S CATHEDRAL SPIRES AS THEY LOOK IN WINTER

If anything, Yosemite Valley is loveliest when the snow covers the pines and cedars and the frozen spray of the falls piles up in cones of ice hundreds of feet high. The granite walls protect the Valley from severe weather and visitors at the Park hotels and lodges leave their snapping wood-fires to go skating, sleighing and tobogganing in this white fairyland.



lumberman. The oldest of these forest giants is unquestionably between three and four thousand years old, several hundred of them rise to three hundred feet in height and large numbers measure from twenty-five to thirty-seven feet at their base.

Brown bears, shy by day, roam the Giant Forest and sometimes raid campers' larders in the wee sma' hours. One moonlight night a two-yearling cub was seen running away on his hind legs hugging to his chest an outsize fruit cake, pan and all, for which he had overturned the kitchen cabinet of someone's motor camp; and several of the rascally fellows got into the Sierra Club commissary department and were routed in a smother of flour and a trail of bacon rinds. At that same camp a three-prong buck used to beg the campers for melon rinds. The wild life which is protected in all of the national parks is a unique source of entertainment.

### *A Land for Pack-horse Trips*

From Giant Forest eastward up the forested slopes of the Sierras, Sequoia Park has been extended to include Mount Whitney, 14,496 feet, which drops almost sheer on its eastern front into the desert just north of Death Valley. To reach it, pack-horse campers negotiate the canyons of the Kaweah, Kern or Kings rivers, a wild region of castellated peaks, where brief afternoon thunder-showers brighten the aromatic conifers, and sun-baked mid-days are succeeded by chill nights. The Kern, unlike most Sierran streams, flows southward and its glacial-hewn canyon embraces more than forty peaks over 13,000 feet in height. The neighboring Kearsarge and Junction Passes were used by the California Forty-niners. Mount McKinley National Park in Alaska contains the one peak in the United States that towers higher than Mount Whitney—20,300-foot Mount McKinley, climax of an ice-coated range more fully described in the chapter on territorial possessions. Two more parks belong primarily in the scenic group. Of these, Sully's Hill in North Dakota is a small

wild animal preserve, while the other is in Maine, the only one in the East.

### *Discovered by Champlain*

Acadia (formerly Lafayette) National Park, occupies old French territory on the coast of Maine, with the ancient Mount Desert Mountains as its nucleus. "L'Île des monts deserts" (meaning, not "barren," but "wild and solitary") was discovered by Champlain in 1604 while exploring to the southward of De Monts' colony at the mouth of the Bay of Fundy. The Island, Mount Desert, was in 1688 presented by Louis XIV to the Sieur de la Mothe Cadillac, who left it for his governorship of Louisiana; and in 1713 the French king was obliged to cede this part of Acadia to England. After the capture of Quebec the island fell to the lot of the Province of Massachusetts, but Massachusetts gave it to Sir Francis Bernard; and although the property was confiscated during the Revolution, Bernard's son later secured a half interest in it—and sold it to American settlers. The other half, Marie de Cadillac, granddaughter of the original owner, regained for her family, but sold it bit by bit.

### *Acadian Woods and Waters*

On this island, long inaccessible, fishing hamlets sprung up and the felling of the giant pines vied with the lobster industry. No steamer came until 1868. In the meantime, a few people of means discovered its delights of boating, climbing and buckboarding, and it became a favorite summer haven. Now the lands composing the park have been given to the nation from various sources. Here amid a remnant of the Acadian forest of mingled conifers and hardwoods the frost-split mountain tops, with their blueberries and bayberries, their ocean views and the several hundred miles of foot trails that supplement the motor roads, lead down to tidal pools which supply a marine biological laboratory.

Of the parks remarkable as works of erosion (Zion and Bryce canyons, which are shown in pictures, Wind Cave and





Courtesy The Atchison, Topeka & Santa Fe Railway Co.

#### A HIKING PARTY ON THE SOUTH RIM OF GRAND CANYON NATIONAL PARK, ARIZONA

A magically colored city of pagan temples, castles, towers and minarets carved by the Colorado River through many centuries as it wound its way to the sea has created one of the mightiest spectacles in nature. The Park boundaries, which enclose over eleven hundred square miles

of this eroded land, hug the canyon rims closely. The south rim is semi-arid, but the north rim is heavily forested with pine, fir and spruce and occasional glades of quaking aspen. It includes the lofty walls that hem off the Painted Desert and the Havasupai Indian Reservation.





Photographs by F. J. Francis

**LITTLE MATTERHORN, OVER ODESSA LAKE, AND DREAM LAKE, ROCKY MT. PARK**



Photograph by George L. Beam, courtesy Denver & Rio Grande Western R. R.

**CLIFF PALACE OF TWO HUNDRED ROOMS, MESA VERDE NATIONAL PARK**

This largest of the numerous prehistoric ruins in the Park lies under the roof of an enormous cave and the entrance, facing west, looks across to Sun Temple. The village (pueblo) is 300 feet in length and probably had 200 rooms, including some 23 underground ceremonial chambers (kivas), many with fireplaces at the centre, a Chief's House and a Round Tower. In addition there were food storage bins in which dried corn may still be found.



the cavelike shelters of the Mesa Verde cliff-dweller ruins), the Grand Canyon of the Colorado in Arizona is by far and away the most extraordinary. Hamlin Garland has said, on viewing a sunset from Pima Point, "Peaks will shift and glow, walls darken, crags take fire, and gray-green mesas, dimly seen, take on the gleam of opalescent lakes." We depend upon the illustration on page 395 to give an idea of its weird carving and gorgeous coloring. Throughout the ages the Colorado River and its tributaries have gouged out of the sandstone a network of mysterious chasms and at one point the water flows red-silted nearly six thousand feet beneath the canyon's rim. The great natural barrier is more than two hundred miles in length, though only 56 miles are in the park. Yet in places one may descend on mule-back by trails that loop in cautious zigzags.

### *Gigantic Natural Barrier*

There is a new suspension foot-bridge at Granite Gorge and a highway bridge that now links the automobile roads of Arizona with those that have crossed the border from Utah. A Hopi legend says that the first human beings ascended from the underworld by way of this canyon. Grand Canyon was not explored until 1869, when Major J. W. Powell, later director of the United States Geological Survey, with nine men in boats, followed its length at great personal hazard.

Mesa Verde, Colorado, is a green tableland on which Richard and Alfred Wetherell, searching for lost cattle in 1888, came upon a hidden canyon and discovered—in a shelf under the overhanging edge of the opposite brim—a prehistoric cliff-dweller ruin that they called Cliff Palace. In a neighboring canyon they discovered Spruce Tree House, another of the best-preserved prehistoric ruins in America. A quarter century later an exploration conducted by Dr. J. W. Fewkes of the Department of the Interior unearthed Sun Temple on a mesa opposite Cliff Palace. The latter is the largest of many cliff-dwellings, each of which had living and storerooms

for numerous clans, as well as kivas or rooms for religious ceremonies. The park was created in 1906.

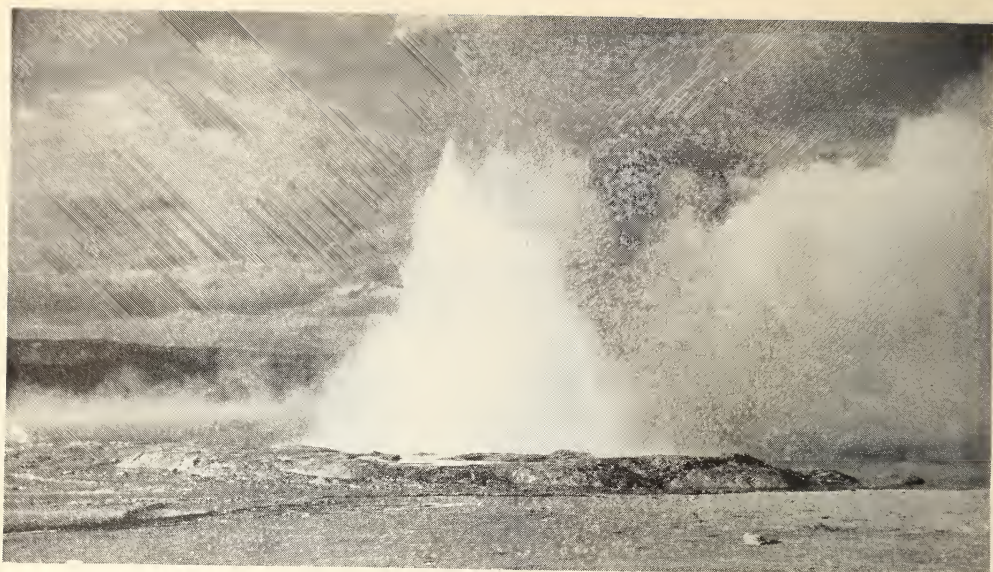
### *Streams of Boiling Water Erupt*

The national parks distinguished first for their volcanic origin include Hawaii, with two active volcanoes, a lake of boiling lava and an extinct volcano (described in the chapter on these islands), Crater Lake and Yellowstone Park. This park contains more geysers than are found in the rest of the world put together. Our four pictures of Yellowstone Park include one of the canyon through which the Yellowstone River foams. Not far distant, along the Lamar River, and elsewhere, there are fossil forests. Yellowstone is also one of the largest wild life refuges in the world. Some of the black bears actually permit automobile tourists to feed them and grizzlies come nightly to the garbage dumps. There are herds of elk, deer and antelope, moose and bison, buffalo, eagles and mountain goats. The buffalo were at one time in danger of complete extermination, as the settlers' fences cut off their pasturage and as the coming of the railroads caused them to be increasingly slaughtered. Now tourists riding quietly a little off the beaten trail often see a line of sentinel bulls rising black against a hill crest. Ranger-naturalists take parties on lecture-walks or talk about the nightly bonfires. The first white man who recorded a visit to the Yellowstone was John Colter, a member of Lewis and Clark's Expedition in 1807. Joseph Meek, W. A. Ferris, Father De Smet and James Bridger also told of it, and a government expedition was sent to explore it in 1859; but it was not until a large expedition went out in 1870 under H. D. Washburn and N. P. Langford that public incredulity was overcome and steps taken to create a park of the area.

### *One of the World's Deepest Lakes*

This largest park was preceded by forty years by the smallest, the radioactive Hot Springs of Arkansas, which in De Soto's time the Indians constituted a Land of Peace. Lassen Volcanic National Park





THE FOUNTAIN GEYSER IN YELLOWSTONE NATIONAL PARK  
© J. E. Haynes, St. Paul



PULPIT TERRACE, MAMMOTH HOT SPRINGS, YELLOWSTONE NATIONAL PARK  
© Chicago, Milwaukee & St. Paul Railway

In places the water has risen charged with mineral substances which have remained in successive deposits until they have built terraced basins over which the water pours; and on these terraces grow minute plants that glow with color. Well-marked trails wind among the steaming pools, which often have crystallized grasses around their rims.





© J. E. Haynes, St. Paul

### GIANT GEYSER, THE TALLEST IN YELLOWSTONE NATIONAL PARK

Each geyser has a crater in which water from subterranean springs or from that which has cooled at the surface and fallen back collects among the strata of intense heat, and becomes itself sufficiently heated to give off steam. This, expanding, forces the water above it upward with a sound of hissing, in columns that vary from a few feet to 250.

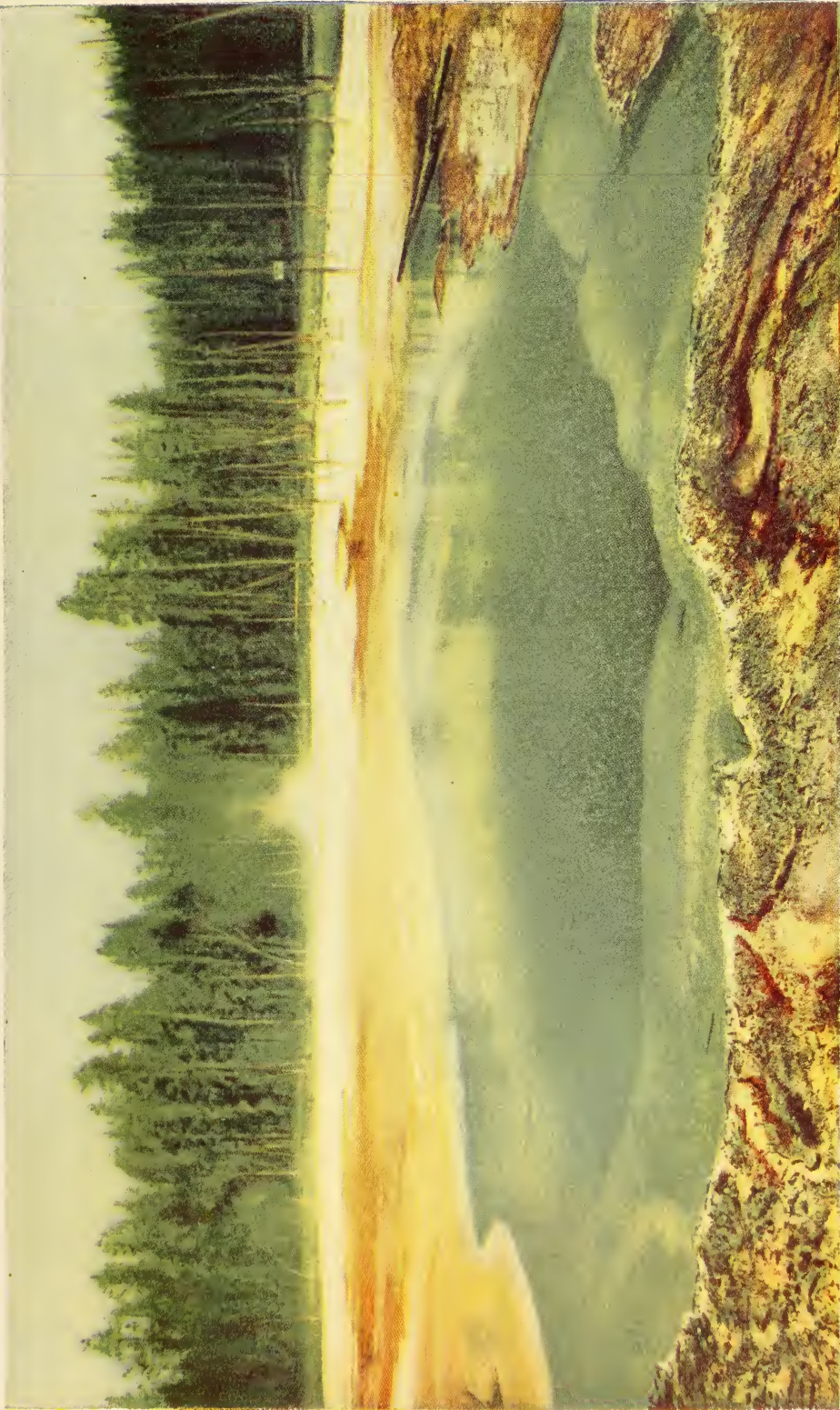




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**THE GRAND CANYON** of the Yellowstone and the Yellowstone River, as seen from Inspiration Point. The multi-colored cliffs are fringed with pines. Above the Upper Falls (109 feet), the river runs but little below the surrounding country, while after leaping the Lower Falls (308 feet), it rushes between canyon walls here more than a thousand feet high.





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**EMERALD SPRING** is unlike the deeper springs of Yellowstone Park, which are a vivid blue. Practically the entire Yellowstone region is volcanic and contains numerous hot-water phenomena. Many hot springs bubble and throw water into the air several feet every minute or half

minute and visitors to these must keep their distance, for in places the heat of the ground may be felt through the soles of our shoes, and the surface, yellow with sulphur, crumbles under our weight. Other phenomena of this strange Park include mud volcanoes.



in northern California was created just before the eruption of Lassen Peak in 1916. Once a row of fire mountains blazed along the mountains of the Pacific Coast states. Of these, Mount Mazama, in southern Oregon, underwent some terrific cataclysm in which the volcano fell into itself, jamming its vent and leaving a thousand-foot rim of cliffs about the cavity. In the ages that followed, cold springs poured in their waters until a lake covered all but the peak of one small cone. The result is Crater Lake, which varies from turquoise to blue-black; and the one tiny cone emerges as tree-clad Wizard Island.

The parks characterized by glaciers are Glacier Park and Rainier, while Rocky Mountain Park, in northern Colorado, and Grand Teton, in Wyoming, show signs of glacial action. Rainier rears its solitary white crown in Washington, where it towers 14,408 feet above Puget Sound, bearing a great cap of ice with ragged border. Its glacier system exceeds all others in the United States in both size and grandeur. Twenty-eight imperceptibly moving rivers of ice which have been explored and named, in addition to unnamed smaller glaciers, flow down its sides until their terminal moraines lose themselves in alpine fields of wild flowers. Rich forests of fir and cedar clothe the lower slopes, but from every open space on road or trail the great white dome glistens until one understands why the Indian name for deity, Tahoma (Tacoma) has been applied to it. Some prehistoric explosion has left a crater a mile wide in the mountain top, and the winds from the Pacific, suddenly cooled against its snow crown, deposit their moisture in terrific storms.

#### *On Hoary-crowned Rainier*

The snowfalls, settling in the crater, press themselves into ice and slide, of their own weight, down the rocky slopes, here grinding down the softer rock strata, there rumbling over precipices until the air of lower altitudes melts them to rivers milky with sediment. As there is less

to impede the ice-flow in mid-stream, crevasses are formed which yawn, green and clear, for hundreds of feet, and climbing-parties are safe only with experienced guides.

Glacier Park has all of sixty glaciers, but is considered even more remarkable for the beauty of its rugged peaks and precipices and its several hundred glacial-fed lakes, the beds of which have been carved by glaciers of past ages. At Iceberg Lake, where there are miniature icebergs, even in midsummer, a glacier once hollowed a bowl beneath a rim of cliffs two thousand feet in height, and, curiously, another glacier hollowed a similar bowl so close on the other side of the mountain that, had they met, a mountain pass would have been created.

#### *Amid Alpine Lakes*

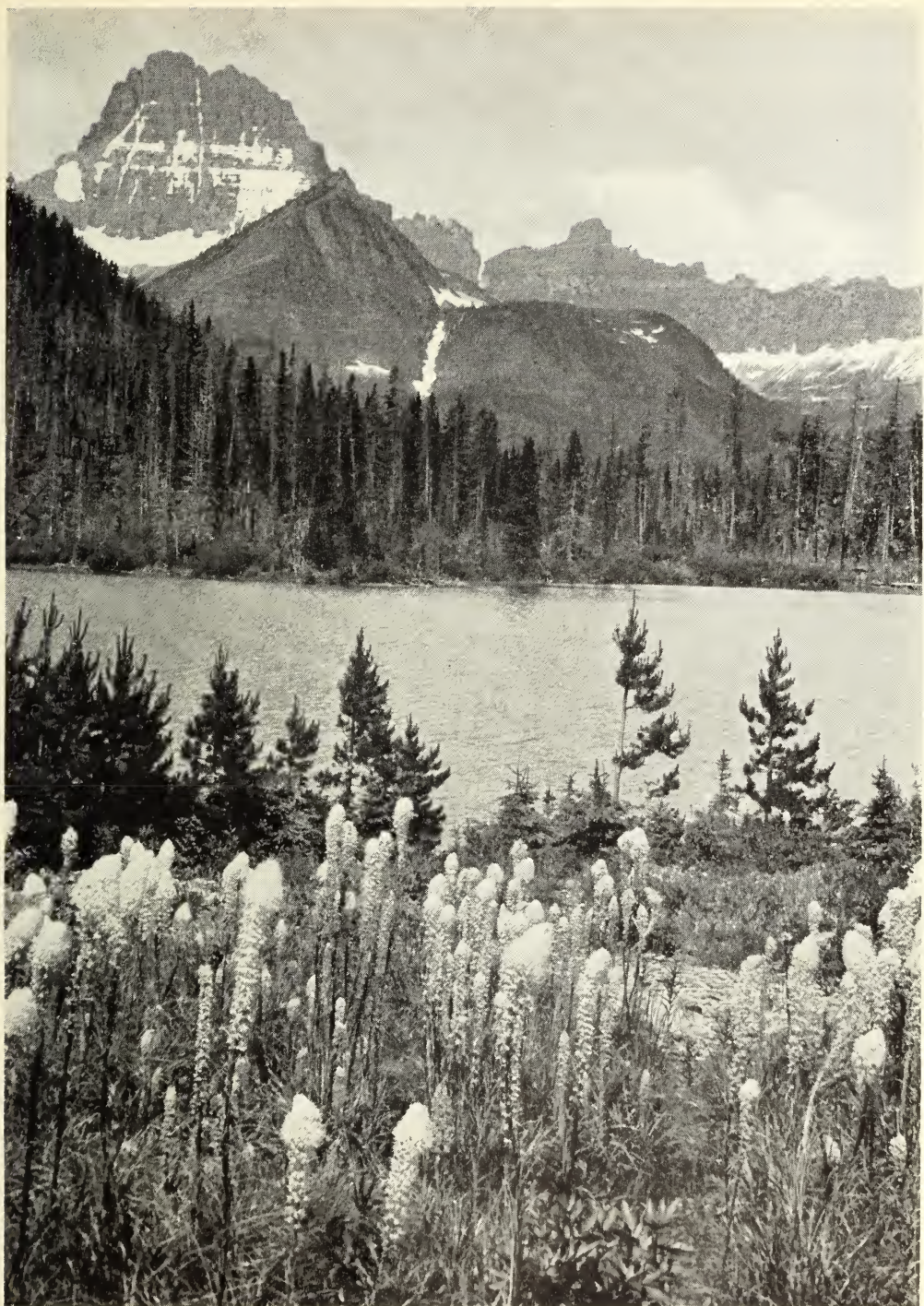
From the Continental Divide a dozen great valleys open gradually along the leisurely western slope, while seven drop abruptly on the east; and each of these valleys leads to some large lake. St. Mary Lake and Lake McDonald, Lake McDermott with its minarets and Two Medicine Lake are too lovely for words, and even pictures leave out their aroma of spruce woods and the feeling of incredible freshness and soothing silence. Among the crags mountain sheep and goats watch while trout dangle the placid waters.

Rocky Mountain Park, "at the top of the world" in Colorado, was fathered by Enos A. Mills, and a huge glacier at the foot of a precipice of Long's Peak has been named for him. Many are the glacial-watered gorges. Those north of Long's Peak are called the Wild Garden and those south of the peak, Wild Basin. The many thickets of white-stemmed aspens make the region a favorite with beavers, who live on the bark.

#### *Stalactites Like Stone Icicles*

Caves as well as canyons have been formed by erosion, and numbers of limestone caverns have been preserved in the national monuments of the West. All have been formed by the action of under-





Photograph by John Kabel

#### VIEW OF LAKE McDERMOTT IN GLACIER PARK, MONTANA

The bear grass and squaw flowers grow to the very feet of the glaciers in this alpine paradise where fully 250 lakes, half a dozen far larger than the rest, lie in a land of enormous hollowed cirques separated from each other by knife-edged walls. For miles the Continental Divide rises in a narrow edge, with a series of vast gulfs on each side.





COURTESY GREAT NORTHERN RAILWAY COMPANY

**GLACIER NATIONAL PARK**, in northern Montana, has more than sixty glaciers, and in its many basins, most of them carved by ice during the glacial period, lie clear blue lakes bordered by meadows of larkspur and Indian paintbrush. In places one can follow the old game trails of the Blackfoot Indians, some of whom still live in the vicinity.





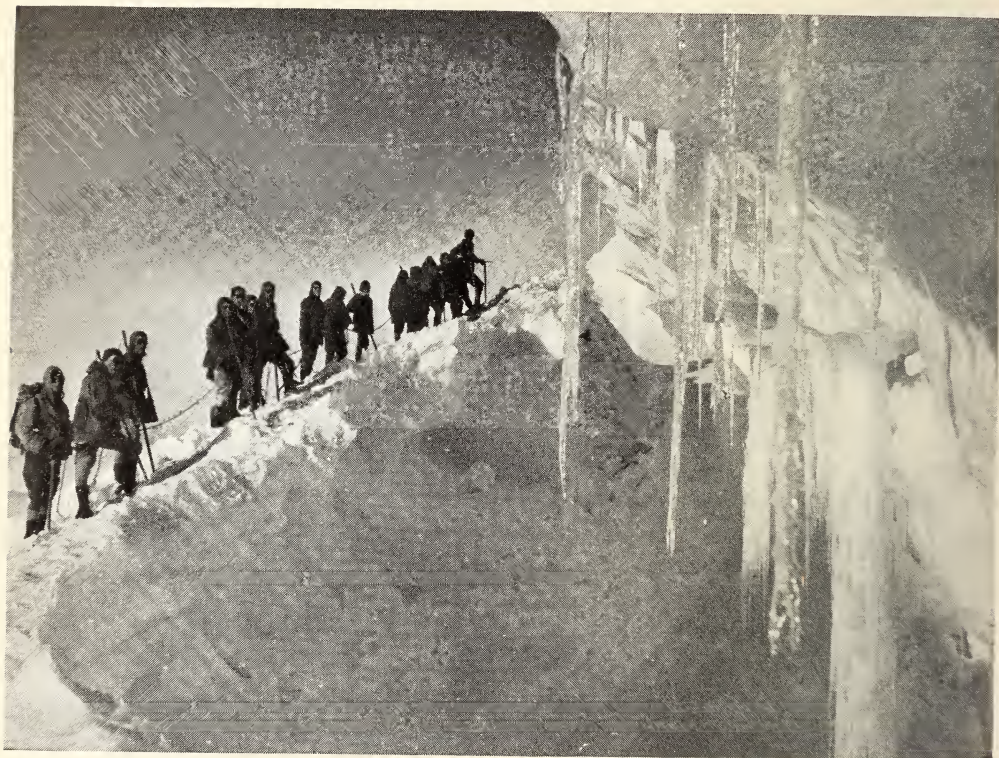
PHOTO © PRENTISS COURTESY UNION PACIFIC SYSTEM

CRATER LAKE lies in the Cascade Mountains of Oregon. The depression, which the lake occupies, is 2000 feet deep in places, and marks the place where the whole summit of the now extinct volcano (Mount Mazama) was engulfed by subsidence. Within its rim, the blue water of the lake mirrors clouds that shimmer in the setting of inverted evergreens, while Wizard Island and the islet called the Phantom Ship present pleasing varieties of color.



ground waters, perhaps through ages of time; and all are more or less characterized by stalactites formed by the drip of water impregnated with carbonic acid and by stalagmites formed by the ground splash from the stalactites which has caused them to grow slowly upward beneath them. Wind Cave in South Dakota is a national park. The largest monument

and our silent shadows go cautiously forward into the mysterious darkness in the yellow flare of our lantern light, forewarned of sudden drops and inky pools, we unwind balls of twine lest we become "turned around" on the return trip. We explore a series of rooms, the largest as weird as a mermaid's palace under the sea. For coral-shaped stalagmites im-



Courtesy Chicago, Milwaukee, St. Paul & Pacific R.R.

**ON THE EDGE OF A BERGSCHRUND, RAINIER NATIONAL PARK, WASHINGTON**

Mount Rainier rises nearly two miles from its immediate base, which is itself a mile above the level of Puget Sound; yet almost every clear summer day climbing parties make their way, under a skillful guide, up the glaciers to Columbia Crest, while the hardest reach the summit. It is necessary to dress warmly, wear dark glasses and protect the face from sunburn.

is Carlsbad Cave, one of the age-old caverns of the Guadalupe Mountains, a range which rises abruptly from the desert to an altitude of nine thousand feet. High amid the naked crags, one enters a musty-smelling hole that leads immediately from a noonday of 115 degrees to 56. The cave roof is the home of myriads of gnome-faced bats, and many tons of guano fertilizer have been shoveled from the door beneath their clustered colonies. As we

pede our steps and in places stalactites hang from the ceiling like stone icicles or meet the inverted tips of the stalagmites beneath them in limestone pillars. In places the ceiling is three hundred feet in height. This Stygian assembly-hall is surrounded by a circle of smaller chambers no whit less weird; and as we explore, we go deeper and deeper underground until we come to one chamber nearly a thousand feet lower than the



point at which we entered. It has been named Nooge for the Indian's Place of Darkness at the bottom of the world. This is but the entryway to Shinav's Wigwam, which contains an extraordinarily great stalactite called the Club of the Navajo's Wolf God. The wigwam has a rotunda two hundred feet in diameter ornate with pendants of white onyx. Jewel Cave,

year President Harrison created the Yellowstone Park Timberland Reserve, the first of a series of such reserves. During the administration of Gifford Pinchot as Chief of the Division of Forestry, the Division became a Bureau, and in 1905 the Forest Service was organized under the United States Department of Agriculture. In 1907 the name Forest



Photograph by Asahel Curtis

**WILD FLOWERS AT TIMBER LINE, PARADISE VALLEY, MOUNT RAINIER**

Here where the great Nisqually Glacier descends from the icy summit of Mount Rainier in a long curve to the south, a kaleidoscope of wild flowers blossoms clear to its fissured surface, which Professor Le Conte has estimated has a movement at midstream in summer that averages sixteen inches a day, although its rocky sides move more slowly.

South Dakota, is still partly unexplored. The same is true of the beautiful Oregon Caves. Lehman Caves in Nevada were made a national monument as lately as 1922, as was Timpanogos Cave near one of Utah's highest peaks.

When the United States first awoke to the need of forest conservation, the President, by an Act of 1891, received governmental permission to set aside ungranted land as forest reserves, and in that same

Reserves was changed to National Forests. President Roosevelt showed special zeal in adding forests to the conservation areas.

The forests of the United States cover approximately one-fifth of the land area and of these, a little over a third are owned by the nation. These national forests, 151 in number, annually yield nearly five and a half million dollars, chiefly from their timber crop, partly





COURTESY UNION PACIFIC SYSTEM

**YOSEMITE FALLS** are among the highest in the world. If we add intermediate cascades and rapids the total descent is half a mile, and of this distance Yosemite Falls alone, in one sheer drop, accounts for 1430 feet. At a distance the roar of the water sounds like a train. There are a number of celebrated waterfalls in the Yosemite National Park in California.





COURTESY UNION PACIFIC SYSTEM

**THE GRAND CANYON** of the Colorado is here shown from the north rim. Here in the Kaibab National Forest are deer and mountain lions. The Canyon walls are higher on this side, resembling an intricate range of mountains on the border of a high plateau. Roosevelt declared this view "absolutely unparalleled throughout the wide world."





Photographs by Bert Huntoon

# WHERE FOREST AND GLACIERS MEET IN MOUNT BAKER NATIONAL FOREST

The peak is Mount Shuksan (9,038 feet), Mount Baker's close neighbor, and the tree in the foreground is a black hemlock. The tree above is a fine Douglas fir along the Mount Baker National Forest Highway and to its right is a group of cedars on that same highway. The Douglas firs frequently grow two hundred feet tall and the logs weigh tons.





Photograph by F. E. Colburn, courtesy U. S. Forest Service

### TRAPPERS LAKE IN WHITE RIVER NATIONAL FOREST, COLORADO, ON A QUIET DAY

Timber in Colorado is confined largely to the high mountain slopes up to about ten thousand feet, and nowhere is it either large or dense. The mountain "parks" and valleys are largely bare, although these valleys are thought to have been ravaged by forest fires, as well as by the reckless cutting that followed the first settlement of the state. Tall yellow pines and slender lodge-pole pines, red fir, Engelmann spruce, species of hemlock and cedar and a few other evergreens, together with cottonwoods and aspen, characterize this picturesque region.





COURTESY UNION PACIFIC SYSTEM

**ZION NATIONAL PARK, Utah,** contains many fantastically eroded canyons. The most colorful is Zion Canyon, a fourteen-mile gorge in the Kolob Plateau, where a wedge-shaped opening only a few feet across, widens to a mile and deepens to three thousand feet. The Great White Throne is the name of the extraordinary formation shown above.





COURTESY UNION PACIFIC SYSTEM

**BRYCE CANYON** National Park, Utah, resembles a giant amphitheatre, two miles by three, and a thousand feet in depth, the rim of which is eight thousand feet above the level of the sea. The softer parts of the plateau have been eaten away, leaving this semblance of towers and minarets, fortresses, pagodas, castles and cathedrals



from the leasing of grazing and other privileges. Yet fire annually destroys over a billion board feet of timber; insects, disease and occasional windfalls an even greater quantity. The fire-fighting led by the Forest Rangers, the saving of trees from loss and the planting of new growth is therefore of extreme importance; for the chief purpose of the forests is timber production. But the rangers also serve the public by advising as to camping, supplying information to lumbermen and what not. When the Forest Service took charge of forest lands, unregulated grazing was proving seriously injurious both to the growth of young timber and to the water supplies. Now, at the same time that the ranges are being brought back to their full productive power, the pasturage is being fully utilized

according to the kind of range best suited to each kind and size of herd or flock. The Forest Supervisor is in charge of a property which must be protected, developed and improved; but he is also a sales manager and his responsibilities include fire protection, forest experiment stations and tree nurseries, forest products laboratories and the enforcement of grazing and lumbering privileges. Although the national forests are widely distributed, the states which include the largest areas of national forests within their boundaries are, in order, Idaho, California, Montana, Oregon, Colorado and Arizona. The extensive west coast forests range in character from the giant Douglas firs of the humid northwest to the tall yellow pines of the semiarid southwest and include many species.

## NATIONAL PARKS, MONUMENTS AND FORESTS: FACTS AND FIGURES

### NATIONAL PARKS

Hot Springs, created in 1832, located in Arkansas, area,  $1\frac{1}{2}$  square miles; Yellowstone, 1872, Wyoming chiefly, 3,426; Sequoia, 1890, California, 604; Yosemite, 1890, California, 1,126; General Grant, 1890, California, 4; Mount Rainier, 1899, Washington, 325; Crater Lake, 1902, Oregon, 249; Platt, 1902, Oklahoma,  $1\frac{1}{2}$ ; Wind Cave, 1903, South Dakota, 17; Sully's Hill, 1904, North Dakota,  $1\frac{1}{2}$ ; Mesa Verde, 1906, Colorado, 77; Glacier, 1910, Montana, 1,534; Rocky Mountain, 1915, Colorado, 378; Hawaii, 1916, Hawaii, 245; Lassen Volcanic, 1916, California, 163; Mount McKinley, 1917, Alaska, 2,645; Grand Canyon, 1919, Arizona, 1,009; Acadia, 1919, Maine coast, 15; Zion, 1919, Utah, 120; Bryce Canyon, 1928, Utah, 22; Grand Teton, 1929, Wyoming, 150. Total area of 21 National Parks, 12,113 $\frac{1}{2}$  square miles.

### NATIONAL MONUMENTS

*Under Department of Interior*

Devil's Tower, Wyo.; Montezuma Castle, Ariz.; El Morro, N. M.; Petrified Forest, Ariz.; Chaco Canyon, N. M.; Muir Woods, Cal.; Pinnacles, Cal.; Natural Bridges, Utah; Lewis and Clark Cavern, Mont.; Tumacacori, Ariz.; Navajo, Ariz.; Shoshone Cavern, Wyo.; Gran Quivira, N. M.; Sitka, Alaska; Rainbow Bridge, Utah; Colorado, Colo.; Papago Saguaro, Ariz.; Dinosaur, Utah; Capulin Mountain, N. M.; Verendrye, N. D.; Casa Grande, Ariz.; Katmai, Alaska; Scott's Bluff, Neb.; Yucca House, Colo.; Fossil Cycad, S. D.; Aztec Ruins, N. M.; Hovenweep, Utah-Colo.;

Pipe Spring, Ariz.; Carlsbad Cave, N. M.; Craters of the Moon, Idaho; Wupatki, Ariz.; Glacier Bay, Alaska; Arches, Utah.

*Under Department of Agriculture*

Gila Cliff Dwellings, N. M.; Tonto, Ariz.; Jewel Cave, S. D.; Wheeler, Colo.; Mount Olympus, Wash.; Oregon Caves, Ore.; Devil Postpile, Cal.; Walnut Canyon, Ariz.; Bandelier, N. M.; Old Kasaan, Alaska; Lehman Caves, Nev.; Timpanogos Cave, Utah; Chiricahua, Ariz.; Lava Beds, Cal.

*Under War Department*

Chalmette, La.; Big Hole Battle Field, Mont.; Cabrillo, Cal.; Mound City Group, O.; Fort Wood, N. Y.; Castle Pinckney, S. C.; Fort Pulaski, Ga.; Fort Marion, Fla.; Fort Matanzas, Fla.; Meriwether Lewis, Tenn.; Fort Niagara, N. Y.; Fort McHenry, Maryland; White Plains Battle Field, N. Y.; Kennesaw Mountain, Ga.

### NATIONAL FORESTS

151 in all, distributed among 33 states, Alaska and Porto Rico, had a total area of 159,480,856 acres in 1929. Alaska has 21,347,097 acres; Idaho, 19,279,539; California, 10,007,370; Montana, 16,196,009; Oregon, 13,287,866; Colorado, 13,278,233; Arizona, 11,349,835; Washington, 9,633,905; Wyoming, 8,548,275; New Mexico, 8,515,117; Utah, 7,486,642; Nevada, 4,979,019; South Dakota, 1,050,512; Arkansas, 1,007,235; Minnesota, 1,005,251. Thirty other states have smaller areas, and a few states have set aside state forests.















